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THE SAINT LOUIS MEDICAL AND SURGICAL JOURNAL.

VOLUME XLIV.

FROM JANUARY TO JUNE, 1883.

THOS. F. RUMBOLD, M. D., Editor and Proprietor.

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THE

SAINT LOUIS

MEDICAL AND SURGICAL

Journal.

VOLUME XLIV——January, 1883——No. 1.

Original Contributions.

ARTICLE I.

A CASE OF GIANT URTICARIA.* By A. H. OHMANN-DUMESNIL, A. M., M. D., St. Louis.

A. J ——— aged twenty, five feet, eight inches high, weighing 130 pounds has always been in good health. September 5th, he ate some crackers and watermelon and sometime after had a sensation of uneasiness in his stomach. The same evening he drank a bottle of Hunjadi Janos water, which acted but very slightly. The next morning I was called and found him with a hot and dry skin, intense thirst, rapid and full pulse, abdominal pains and constantly vomiting, with intense nausea. He complained of feeling a lump in his bowels. I prescribed small doses of soda-water to allay the irritability of the stomach together with powders containing very little morphia with some subnitrate of bismuth.

Upon examining the skin it was found covered with minute papules, and macules and beginning to itch slightly.

In the evening the irritability of the stomach had subsided to some extent as also the abdominal pains.

*Read before the Linton District Medical Society, Nov. 15, 1882.

The next morning, Sept. 7, I prescribed a mercurial to be followed by a saline cathartic five hours later. It was then that the skin presented a most unusual sight. The patient was covered *from head to foot* with the characteristic wheals of urticaria. Their size varied from a large pin-head to half the size of the palm and could be found even upon the scalp. The face was swollen, and an intense pruritus was present all over the body. Frictions with whiskey were ordered to allay the itching.

The cathartic that had been ordered acted well and the patient's bowels were thoroughly emptied that night.

At noon the next day the eruption had nearly all disappeared and the patient ate a full and hearty meal. In a few more days he was thoroughly well again and about his business.

The chief points of interest about this case are:

1. The fact that the cause of the attack was undoubtedly an indigestion of the food taken on the 5th of September, by which means a derangement of the gastro-intestinal canal was caused, and this in its turn was the means of provoking the eruption.

2. The general disturbance which, as a rule, does not accompany such attacks. Although there was fever, no headache was ever felt.

3. The amount of surface invaded by the eruption. Generally in adults or after puberty the surface is not so largely invaded nor accompanied by such strong constitutional symptoms as in infants.

4. The duration of the attack was also rather prolonged, lasting almost, if not, four days. As a rule, the wheals are ephemeral, appearing suddenly and disappearing in a very short period of time.

5. The size of the wheals was unusual. The large ones were, of course, formed by the fusion of several smaller ones; still wheals as large as half a palm—and there were several noticed—are but rarely observed.

6. Another point was the appearance of the eruption and its evolution, beginning as a macule, then becoming a papule and a number of these becoming infiltrated and converted into a wheal.

Article II.

Doubts in Regard to the Voluntary Motions of the Child in Utero. By E. Benkendorf, M. D., St. Louis.

II.

Doubts Expressed in Regard to to the Voluntary Motions of the Child in Utero.

There is no denying but that the child in utero undergoes changes of position. Whether these changes proceed from movements of the child or are the result of a force not proceeding from the child, is the question to be discussed presently.

We must believe that there is design in everything done by nature and that such design can ultimately be discovered by man's intelligence. What then may be the design or object of the child's movements in utero, supposing such movement to exist?

1. Is it to protect the life of the fœtus? If so, it may be fairly assumed that the danger to the life of the child from external causes is as much before, as it is after quickening has been established.

2. Does the fœtus need voluntary exercise? Hardly; for sometimes the fœtus may not have been credited with any perceptible motion and still have a plump and strong development of its muscular tissues and another fœtus may be but weakly developed though it apparently had moved with great energy whilst in utero.

3. Is the fœtus, at the time of quickening, in such a condition as to make muscular self-motion necessary to assist in its future growth and in the development of its physiological functions? As much as we know it is the placenta that regulates the warmth and molecular exchange necessary for the nutrition of the fœtus.

4. Are the child's voluntary motions conclusive to a proper selection of position favorable to its delivery? Not at all; the position and presentation of the child is entirely effected

by the womb and the mechanical effect produced by it on the child.

5. Is the change of position of the fœtus in utero beneficial to the mother? Certainly; the change of the child's position relieves the mother from the continued pressure produced on one or another of her organs, by the gravid uterus containing a fœtus, the parts of which are not all of the same weight and hardness. It can easily be imagined how prejudicial such pressure might prove to the mother. If, therefore, in order to relieve the mother's parts from undue pressure, the fœtus voluntarily moves, it must become evident that the fœtus is capable of self direction. Self direction would necessitate judgement. Without the latter a strong child in utero might injure the womb, placenta, cord and itself.

6. If the child is born asphyxiated and be yet living, as indicated by the beating of the heart and the pulsation of the cord and by the temperature imparted to our practical touch, is there any muscular motion made manifest to the observer? There is none.

7. Does the child, when within the womb, answer by muscular contractions, to the touch of the accoucheur whilst turning it or when in the act of applying instruments? The writer cannot remember to have observed such signs of motion on the part of the child.

8. Why does the child become fixed when labor has set in, although there is plenty of room and an undiminished quantity of liquor amnii to allow of the child's motion?

Because the liquor amnii is in an equal state of contraction, compressing the liquor amnii closely around the child and instead of changing the child's position by partial contractions, it forces the child in one direction, from above downwards upon the cervix which holds the presenting part of the child firmly embraced.

9. Can the mother influence the child in utero voluntarily to move? If such were the case the child's position would always be favorable for delivery; but as it is, we know that the mother has no knowledge of the presenting part of the child and has to rely upon the statement of the accoucheur.

10. In what physiological condition must the child find itself to establish muscular contractions of a voluntary or reflex nature? *The respiratory functions must have been established previous to all voluntary movements.*

In explanation of the above, let it be said that when a person

is asphyxiated the least movement of his voluntary muscles is a sign of returning normal respiration. Persons under chloroform have their respiration reduced to a minimum, in consequence of which their voluntary motions cease to exist. At the return of their normal respiration they become conscious or at least awaken, although this awakening may not always take place whilst motion of reflex nature does invariably take place. Sleep does not deprive us of respiration nor of reflex muscular action. Cessation or a very reduced state of respiration deprives us of consciousness. The danger of chloroform inhalation must be sought in its effect upon the respiration. The writer has seen a patient operated on for stone in the bladder, continue to sleep long and soundly after the effects of chloroform on the respiration had completely disappeared. The prolonged sleep was most likely owing to the staff, as we know that catheterization of the urethra will put some persons to sleep.

There is sufficient presumable evidence that the child in utero does not breathe—its lungs are inflated and there is no air to enter them whilst the child is immersed in a bath of liquor amnii. The writer does not, therefore, believe the child in utero has muscular contractions of a voluntary nature nor that reflex motion of its voluntary muscles can be produced whilst in utero.

III.

How can we Account for the Apparent Motions of the Child in Utero?

1. During the first half period of gestation the womb with its contents does not sufficiently press on neighboring organs to receive from them the incitement to contract in some of its parts, thereby easily moving the child resting unconfined in the liquor amnii. At least, any possible motions during this period are generally neither clearly perceived by the mother nor by anybody else. But at the middle period of gestation the womb has sufficiently increased its muscular tissue and has acquired the new physiological condition, to enable to answer the demand on it to contract in such of its parts as can effect a change in the child's position. Whence, however, the demand? Either the womb is directly influenced by neighboring organs, which influence would be of a mechanical nature, or the neighboring organs reflect their impressions to the cerebrum of the mother, which

induces the contraction of the abdominal muscles, and, in this way, institutes the naturally complicated process by which the child in utero is moved. If the latter proposition be correct it also would explain how emotions can produce uterine contractions, because there is no direct will-power existing in the mother to act by immediate impulse on her womb. Her will-power may, however, act on the external organs of generation and on the other organs which are endowed with voluntary motive power and are related to the womb by anatomical position.

2. An objection to the above reasoning may be found in the fact that there are no such perceptible movements if the child is dead. But here we must remember that with the death of the child the liquor amnii becomes immediately poisoned and in this condition enters the circulation of the placenta and uterus. The muscular tissue of the uterus becomes weakened in consequence of blood poisoning and the labor pains of necessity are not as they are known to be when the child is living. The death of the child prevents the mother from instituting such physiological processes as would enable a change of the child's position in utero.

3. The act of parturition is entirely effected by forces generated within the mother, the child taking no active part in its own delivery. These forces most likely do not emanate from cerebral ganglia but from ganglia of the great sympathetic. This accounts for the fact that inhalation of chloroform does not retard, but facilitates labor.

Before I shall have anything to say on the life of the child after birth, I would beg to refer the reader to the motive mechanism of a locomotive. Here the generated steam force is made to exert itself on one portion of the moving apparatus and this being set in motion, imparts movement to the other parts and in consequence the wagon wheels are put into motion. The same gradual continuity of force is observed in the human system. Cerebral action may precede respiration but the motive force, if generated in the brain, is first impressed on the respiratory muscles. Thus impelled, all the rest commence to move in quickest succession. If the child, therefore, could move its extremities without breathing, this would be tantamount to supposing that a railroad car can move before the first motive wheel of its engine has been made to start all the rest of the machinery. Should we, however, contend that the motive force acts primarily on some other parts than the lungs of the child whilst in utero, we have a right to argue that such imparted voluntary motion would necessarily draw the respiratory muscles into action. We have, however, positive proof that the lungs of the child in utero do not expand.

[TO BE CONTINUED.]

Article III.

Nerve Stretching of the Great Sciatic Nerve for Sciatica.—Recovery. By J. G. Carpenter, M. D., Stanford, Ky.

Mr. J. S. R. age 57 years, inherited a rheumatic diathesis and had inflammatory rheumatism in 1852: in 1857, had another attack: in 1872 had lumbago, which lasted several weeks. Since 1875, has had general muscular rheumatism and sciatica every winter, and in addition, had periostitis followed by hypertrophy of the trochanteres majores and ossa innominata near the sacro-iliac articulations and has had duodenal dyspepsia many years. May 1881, Mr. R. had general muscular rheumatism and sciatica of the right great sciatic nerve, and tried the alkaline and acid treatment, hot baths at night and cold baths at morning, also used rubefacients and blisters freely,—having become disgusted with doctors he concluded to try the remedial, virtues of Hot Springs, Ark. and went there and took about thirty baths which relieved his muscular rheumatism, but made his sciatica worse. The galvanic current was used daily, locally; iodide of potash grs. xxx, were taken internally three times a day and sulphate of atropia gr. 1-50, once daily hypodermically, were used many days with very little relief.

Mr. R. returned home Jan. 4th. 1882 very despondent, having sciatica as violent as ever. During the month of February I was called to see him to give temporary relief which I did by inserting morphiæ sulph. gr. 1-4; atropiæ sulph. gr. 1-60, over the great sciatic nerve near the sacro-sciatic notch. The hypodermic insertions daily, and the iodide of potash grs. xl—lx were given internally three times a day for three weeks with only temporary relief. The actual cautery, the end of a glass rod heated to a white heat, was applied over the great sciatic nerve from its origin to the os calcis; the burns being about two inches apart, twice a week for two weeks, attended with little benefit except to increase the warmth of the leg and foot.

I advised nerve stretching as a *dernier resort* to which he readily consented.

March 14th, Mr. R. was chloroformed by Dr. Ayton, the thigh being flexed, an incision was made from two inches below the sacro-sciatic notch downward six inches long, over the sciatic nerve, dividing the skin, subcutaneous areolar tissue, and lower border of the gluteus maximus and fascia lata. The wound was nowexamined by myself and Dr. Johnson. The limb was now extended, the foot inverted, and the thigh abducted, the trunk of the patient being in the antero-lateral decubitus and the nerve extracted through the wound and fully stretched, using traction on both the proximal and distal portions: the nerve after being stretched was about two inches longer than before the neurilemma was thickened, congested; had numerous reticulations of venules, some of the veins were at least one sixteenth of an inch in diameter; the neurilemma presented a whitish yellow appearance and proved evidently that a neurilemmitis existed with partial fatty degeneration. There were so many adhesions between the neurilemma and adjacent tissues that, the nerve was drawn out of the wound with great difficulty. The wound was closed and dressed antiseptically and united by the first intention in 48 hours though, the following night the extreme restlessness and almost constant rolling of the patient produced separation of the lips of the wound about one inch and a half, and then healed by granulation in ten days. An hour after the operation was completed there were twitchings of the muscles of the affected limb which were soon arrested by insertion of morphiæ sulph. gr. 1-4 and atropiæ sulph. gr. 1-60, these twitchings recurred a few times the first twenty-four hours but were controlled by morphiæ sulph. gr. 1-4 and potassii bromid. gr. xxx. Dr. Hammond states in *St. Louis Clinical Record* p. 193.—1881 (*Walsh' Retrospect*) that the twitching of the muscles occurred in every one of his cases after the operation, and in one case it was a troublesome feature keeping the patient awake all night.

Mr. R. was insomnic and restless for a month and neurasthenic and hysterical for two months after operation. There was paresis of the bladder and retention of urine for several days. The extensor proprius pollicis, extensor longus digitorum, tibialis anticus, and peroneal muscles were completely paralyzed by the nerve stretching.

For months before the operation there was tenderness on pressure over the sciatic nerve from the sacro-sciatic notch to the knee, but there has never been any pain or tenderness in

the nerve since the day of operation. The Faradic current was used from 10th of April to 20th of May and discontinued, it was used both locally and generally. July 1st the muscles are yet paralyzed, and the galvanic current is prescribed for a month longer. Sep. 1st all the muscles have regained their tonicity except the peroneus longus and brevis: Oct. 1st the muscles are restored to their normal state. Patient is fully restored to health: locomotion is perfect. Drs. Brownough, Lewis, and Young were present by invitation.

The iodide of potash gr. xl to lx was prescribed three times a day for six weeks to eliminate the rheumatic diserasia, and never disagreed any with patient unless taken in more than sixty grain doses. The hypertrophy of the ossa innominata and trochanter has been absorbed by the administration of the iodide. Scott's emulsion of cod liver oil was taken for six weeks after leaving off the iodide. The best nerve tonics were prescribed shortly after the operation and continued several weeks. Patient has never had any duodenal dyspepsia since the nerve stretching. Mr. R. has been directed to use anti-saccharine diet. Sop. orifics had to be administered in large doses to produce sleep and quiet for six weeks.

In *Medical Herald* June, 1882. p. 67, the results of nerve stretching are published by B. Nacht, Berlin. 147 cases are collected and three extra cases reported by Westphal. The conclusions are the following: Sciatica 24 cases: 21 cured, 88 per cent. in 16 cases the result immediate and lasting. Trigeminal Neuralgia 17 cases with immediate and lasting relief, 59 per cent.: in 5 case cure was slow and gradual, in two relapses occured. Traumatic Neuralgia,—in two thirds of all cases, prompt and good result: in three cases, no result. Tic Convulsive.—In seven out of eight cases spasm was arrested, but the same was followed by facial paralysis. Tetanus Rheumaticus.— Out of 24 cases, six were cured. Reflex Epilepsy—Result good. Three cases of congenital epilepsy resulted in relief and respectively cured. Tabes Dorsalis and well developed.—In some cases the symptoms were favorably affected by the operation: the ataxy and disturbance of bladder and rectum were improved; in others, secondary effects were experienced, like anesthesia and paresis. The patellar reflex could in no case be restored. As a final result of these statistics the author asserts that the value of nerve stretching stands as indisputable in neuralgia,

tetanus, and epilepsy; but in diseases of the nervous centers, it must be recognised as a dangerous symptomatic remedy.

Westphal's clinic: 1st case, Man 42 years old typical tabes, stretching of both throat nerves on May 13th by Prof. Bardeleben, ataxy little improved, general rigor diminished; only the headache and the intense lancinating pain in the lower extremities are generally relieved.

2d case: Woman 40 years old, genuine tabes, nerve-stretching, Feb. 15th 1881, of brachial plexus, on account of intense pulling pain in the right arm. Pain subsided twelve days after the operation. Progress of disease not arrested.

3d case: Complete symptoms of spastic spinal paralysis—stretching of the right crural nerve in 1877, spastic symptoms disappeared after operation but complete paralysis of both lower extremities followed, accompanied by paralysis of the bladder and rectum, and bed sores. The patient died one year after. It was Westphal's opinion that an acute circumscribed myelitis had developed in consequence of surgical interference.

Locomotor ataxy in its early stages appears curable by nerve stretching. Erb in his work on diseases of the spinal cord in Ziemssen's Encyclopedia reports two cases about cured. One patient had been free from spinal disease eight years; absence of the patellar tendon reflex alone remaining, and died from acute poisoning. A post-mortem revealed the degeneration in the posterior columns of the cord characteristic of locomotor ataxy.

Ashhurst, in *Medical Times* mentions two cases of traumatic neuralgia, one was a success the other a failure, from nerve stretching; he also mentions a case of traumatic tetanus in which he used nerve stretching 48 hours after injury; patient died in a few hours after operation.

Dr. John of Danville, Ky. performed nerve stretching for traumatic tetanus, patient died twelve hours after operation, though the convulsions were arrested.

Oct. 25th 1881, I reported to the Tri-States Medical Society a case of traumatic tetanus cured by nerve stretching.

Translations.

Article IV.

FROM THE FRENCH.

Excerpts from Late French Journals. [Translated for the Journal.] By A. H. Ohmann-Dumesnil, A. M., M. D., of St. Louis.

Torsion of the Tongue.—H. Desplats, of Lille, records the following interesting case: J. R. aged 39, is affected with left hemiplegia and hemianæsthesia, the result of an apoplectic attack. He has painful crises several times a day and is obliged to take morphia.

Since admission to the hospital, he has had several epileptiform attacks which presented nothing remarkable; the last one only gave rise to a singular contracture of the tongue. It took place Aug. 9, during a visit and could be observed in all its phases. For two or three days previously the patient had marked cephalalgia and loss of appetite.

Suddenly, two minutes after having answered our questions, J. R. turned upon himself from left to right and fell from his bed; he was immediately raised and besides the convulsions of the extremities, of the face and of the eyes, he was biting his tongue. As soon as relaxation began to appear the tongue was seized and an effort made to return it to the cavity of the mouth. Then it was that the observation was made that the tongue had turned itself almost completely from left to right and from above downwards. The left border was to the right and the lower surface had become the upper. It was easy, by pulling the tongue out, to return it to its normal position; but but as soon as released by a short movement, it twisted itself anew. This was repeated several times. When the tongue was pulled out, it could be seen that the muscles of both halves contracted. The tongue remained in this state of torsion for several days. On the fifth day it was less pronounced. The next day the left border had become vertical. On the 10th, ten days after the attack, the tongue was

again in its normal position. The patient can produce this movement voluntarily but in an incomplete manner—[*Paris Médical.*

TREATMENT OF DIPHTHEROIDAL VULVITIS IN CHILDREN.—Dr. D. Surjus, of Lyons, in a thesis contends:

1. The mucous membrane of the genitals of little girls is often the seat of an inflammation of special nature, contagious and inoculable, characterized by the eruption of small white vesicles, to which succeed rounded, cup shaped ulcerations covered with pulpy gray membrane.

2. This affection of the vulva may be developed in other regions. In the mouth it constitutes ulcero-membranous stomatitis or noma; on wounds it is hospital putrefaction; on the skin it is described under the name of disseminated or diffuse gangrene.

3. The difference in locality produces but slight modifications. It is identical in the different localities, it shows itself everywhere under the same influences, has the same physiognomy and presents the same indications.

4. This affection constitutes a morbid entity independent of diphtheria and of gangrene with which it is often confounded, It is *diphtheroid.*

5. Diptheroidal vulvitis is an affection essentially local not very grave and due to microscopic organisms whose species has not been well determined, but which appear to be monads or bacteria.

6. Iodoform topically, is a specific in this. Its employment, up to the present, has produced complete inoccuity. In France, the iodoform is generally employed in the form of fine powder sprinkled over the diseased surface; over this is placed lint, a soft rag or absorbent cotton. The powder is also kept in place by means of a solution of gum arabic or of collodion.—[*Ibid.*

ATTENUATED FORMS OF BLENORRHAGIC OPHTHALMIA.—L. Parizot, of Lyons, arrives at the following conclusions, after a study of several cases:

1. It is rational to admit that there may exist for the eye, as well as for the urethra, notable differences in the degree of activity of the blenorrhagic virus.

2. Our clinical facts confirm the idea that attenuated forms of blenorrhagic ophthalmia exist and establish the fact that these forms present themselves in patients in whom the discharge is of long date.

3. The experiment of Brière, lost sight of, and which recalled, demonstrates that inoculating the eye with a long standing discharge can only provoke an attenuated ophthalmia.

4. The above conclusions, it must be borne in mind, must not be regarded as tending to diminish the precautions which are recommended to avoid ocular contagion.—[*Lyon Médical.*

THE OVA IN THE UTERUS.—M. Budin made a communication to the Société de Biologie on the distribution of ova in the uterine cavity in twin pregnancies. When there are two fœtusesin the uterine cavity, the two ova may be situated vertically, one by the side of the other, they may be superposed or placed one above the other, the superior one, horizontally the other vertically, or both horizontally; they may also be one in front of the other; finally the two ova although distinct and separable from each other, may be disposed in such a manner that one completely surrounds the other. The examination of placentas after delivery, permits in a certain number of cases, the restoration of these different relative positions of the two fœtuses. The symptoms equally differ according to the case. The most valuable signs are: hearing both fœtal heart sounds, perception of the different fœtal parts by palpation. When the two are placed side by side there is felt among other signs a vertical furrow separating the two sacs. When placed one above the other, there is no furrow or depression, the heart sounds are superposed. If they are one before the other, the prominence of the belly is much more marked; there is sub-pubic œdema, but the second or posterior fœtus is entirely inaccessible to palpation.—[*Gazette des Hôpitaux.*

TREATMENT OF CHRONIC UTERINE INVERSION.—Dr. Andigé, in a thesis, says that in the case of chronic uterine inversion the surgeon ought first to attempt taxis taking all the precautions recommended in such cases.

If taxis fails, reduction is to be attempted by applying pessaries and allowing them to remain in the vagina; reduction is

any age, but more likely in children and in boys more than girls, for boys are more careless and reckless, are more exposed to accidents.

If one would carefully record his cases and would make careful inquiries, he would almost always find that the disease had its origin in some injury done to the bones or cartilages, that it depends upon traumatism, "blows, concussion," (here followed some cases).

In this manner some center of ossification is disturbed to such an extent that inflammatory action will follow, terminating in inflammatory softening and disintegration of the bone itself. Such disintegration of the bodies of the vertebræ takes place simultaneously. The spinal cord is not affected; spinal meningitis, however, may occur and may produce paralysis. After such disturbances of one or more ossific centers of the vertebræ, a long time may pass before attention is drawn to the case; the bones may have become already destroyed, distortion developed, the constitution may be exhausted thereby and then it might be said, constitutional cachexia is the cause. But in reality the origin was an early injury and the constitutional symptoms, caused by the long suffering of the patient. (Here allusions were made to fracture of the transverse processes of the vertebræ, to fracture and dislocation of the cervical region. To the abscesses that may form in the different regions of the body and how to distinguish the same, etc. etc.)

You are all acquainted with the symptoms of this disease, as given in the text-books, such as spinal irritation, weakness, numbness, difficulty in walking or standing, etc. When the disease is once developed it cannot be mistaken. Our journals of late have frequently called attention to the importance of early recognizing this disease, so that its progress may be checked. The same cries are heard on hip disease but, that is all; what is the most important to the practitioner? A sure symptom of the very beginning of this malady is not spoken of, and the truth of the matter is, the early symptoms are very obscure and mysterious. But we may ask, are there no early symptoms at all that may lead us to suspect that some mischief has been done to the spinal column? Well, let us direct our attention, for a few moments, to the nerves that make their exits from the spinal canal at points opposite to the seat of the disease, for we know they will become more or less involved and will manifest such

disturbance by symptoms developed at their distal extremities. For instance, if the disease is situated in the cervical region, then the patient may complain of difficulty in swallowing, long before any disturbance makes its appearance. There may be a choking sensation as if there was a string around the neck, also a difficulty about the larynx, producing cough and pain in the thorax. Such may be the only symptoms that will attract attention; they may not be attributed to a long forgotten injury. (Then the symptoms of the dorsal and lumbar regions and the general differential diagnosis were given.)

Now, gentlemen, a patient has these early symptoms first described, the parents send for a doctor, he prescribes a cough mixture and some liniment; the patient goes on but gets no better; now the throat doctor is consulted, he finds already some irritation and treats it, but with no better result; the disease goes on, is at last developed and then they all know what the matter is. Remember the early symptoms were not primary but secondary.

Now, a second case: A young girl jumps off a wall or steps, she feels a pain in her back, perhaps her stomach as she calls it; she says nothing, bears her pain for a little while, at last a physician is called in, he prescribes a liniment for neuralgia; the patient gets no better. If he has annexed gynæcology as a specialty, his attention may be attracted to the pain in the loins and pain down her thighs and the frequent desire to pass water. And then the gynæcologist is called in and finds a displacement of the womb; now the womb is treated, maybe by a pessary. But still the patient gets no better, pain in the back continues. In time the true and unmistakable signs of spinal disease are produced. They all know now what the matter is! Pray, gentlemen, do not understand me by these remarks, that I disapprove of specialists; no, far from that. You know I favor specialism. No one man can be perfect in all branches, but one who has just left the college and begins at once to practice a specialty, will be but a one-sided specialist. I believe that first to obtain a general knowledge, by many years of practice and then a specialty based upon that fou .dation; however, let the general practitioner take advantage of all specialties.

And let me say to you, whenever any patient presents himself to you with any of the above enumerated early symptoms, do not fall into the error and mistake the secondary for the pri-

mary symptoms. In our second case, all the treatment the womb could have received would not have cured the spinal trouble; but it is likely that if the spinal trouble had been recognized early and treated, the womb would have needed no treatment.

Whenever we meet with such symptoms and we cannot explain them by well recognized diseases, let us not forget to examine the spine. (Here followed the mode of examining the spine and the use of the vibrating rubber hammer for percussion of the bones.)

Now we come to the treatment; and what does the wise Mother Nature say to us? she cures this disease by anchylosis, and that is the cure that we aim at, and I will now show you the method by which it may be accomplished—that is the application of Sayre's plaster of paris jacket. (Here Dr. Borck applied the jacket and explained every step, also the mode of taking a plaster cast.)

Now, gentlemen, this is the way the jacket is applied. I have seen it applied by the author and I know it is correct, for I have studied it carefully before I ever attempted to use it. Remember every step and do not forget the points to which I have called your attention. They are all important and as I have told you before, whenever one makes use of another man's apparatus, which he has a perfect right to use, let him study first that splint or jacket and its mechanism thoroughly, let him know what he wishes to accomplish with the same. We have no right to abuse or misuse them, no right to apply them in a bungling manner as in the cases related to you, and then blame the splints or the jacket and not his own carelessness.

One thing I do not use with the splint, is the dinner pad, not because I wish to make a modification, but simply because it is not necessary. A full stomach is sufficient. It is remarkable how fond doctors are of making improvements upon the inventions of others, and if such cannot be done, to make a modification and often these alterations are made before the alterer has ever used the apparatus, or after an unskillful application of the same. The so-called improvement must come in at once, in fact he may have thought about the improvement at the time when he first beheld the apparatus. This is the age of machinery and invention; as soon as a doctor makes gynæcology a specialty, he must invent a speculum or pessary; the aurist, a forceps; the

oculist, a needle; the professor of surgery could not live without a splint of his own, and thus thousands of useless and very few useful appliances are produced. It would be better to study well the old ones that have and will answer the purpose and rather learn to be skillful in the use of them than to produce new ones.

This jacket answers all purposes as long as the deformity is below the seventh dorsal vertebra; if it is above we must have the head rest in addition, jury-mast as you see it depicted in the photographs on the walls, taken from Sayre's book (explanation of the mode of applying it, followed).

If the deformity is not in the cervical vertebræ, but between the seventh and first dorsal vertebræ, you may apply the jacket in the same way and in addition let the bandage run in a figure 8 manner over the shoulder, thus without the head rest, but the support is not as good.

But never attempt to straighten an already anchylosed or a partially anchylosed spine and promise the patient that he or she will be as straight as a doll or as a pine tree; your attempt would be both fruitless and injurious.

Rotary lateral curvature depends upon irregular muscular contraction or an abnormal contraction of the muscles of the back or one set of muscles may be paralyzed. (Here followed explanation and differential diagnosis.)

In regard to its treatment, I prefer a movable jacket (here the reasons were stated) and I like the felt jacket the best, the making and application of the same I cannot dwell upon to-day, as I am already beyond my time.

Gentlemen, this finishes my course of lectures for this session You will observe that I rarely even mention the name of any other surgeon. Surely never in connection with any unsuccessful case or in connection with any mistaken diagnosis; for that, to say the least, would be very unkind. No one knows how soon he may commit an error. And to name all the successful surgeons and all the splints in the market, would take up time not, well spent. I merely demonstrated to you the apparatuses, showed you the application or the operation, without the author's name. But you always have found me to do the authors justice upon the wall, a written rostrum of books, pamphlets or medical journals, where you could find articles upon the subject under discussion. The only exception I made, I made with Sayre and Bauer, whose works I called special attention to; with Spencer Wells and Keith, when I lecture upon ovariotomy; and with the late and illustrious Prof. N. R. Smith, of Baltimore, my old Preceptor and friend.

In conclusion, I thank you for the close attention you have given me during all my lectures. I hope to see you here again, farewell.

Proceedings of Medical Societies.

Article VI.

ST. LOUIS MEDICAL SOCIETY.

Taken by the Journal's Stenographic Reporter.

Saturday, Oct. 21, 1882.

A Great Error in Diagnosis. By S. Pollak, M. D., Surgeon in Charge of the Eye and Ear Infirmary of the St. Louis Hospital, and of the Missouri School for the Blind.

Mr. President:—Pleasant and instructive is the telling of successful treatment, but much can be learned from our failures, if in spite of earnest and diligent endeavors, we are unable to reach the truth. I was in attendance on an unmarried lady patient of fifty-four years of age, who has been under my care from time to time for many years. The first time I saw her, about thirty years ago, she was sick with pleuro-pneumonia. She was a dressmaker by trade, very industrious, yet leading a very sedentary life. She grew very fleshy. The increase of adipose on her became very inconvenient for locomotion. She must have attained the weight of 350 pounds. Sometime last winter she fell down a few steps, and contused one knee considerably, which confined her to the house for a long time, and interfered somewhat with her business. The surgeon in charge (Dr. Gregory) said, nothing but rest would do her any good. This compulsory inactivity depressed her spirits considerably. Last spring when she consulted me, she was complaining of constant pain in her stomach, want of appetite and of digestion. She declined allowing me to make a proper examination, and of course, I could not prescribe for her. On my return from the meeting of the American Medical Association, she sent for me again, and this time she submitted to an examination. The first thing which attracted my attention was an enormous *umbilical hernia*. It was as large as my fist and shaped like a toadstool. It had a broad, flat head and rested upon a narrow pedicle and was several shades darker than the adjacent integuments. It was very easily reduced with a gurgling sound. The umbilical ring was so large that I could thrust three fingers in, but when the fingers were withdrawn, out came the contents of the abdomen again. I hoped that the umbilical hernia was the chief cause of her discomfort, and pain in the stomach, and that the reduction and retention of the contents within the abdominal cavity would give her complete relief. It was no easy matter to find a

suitable truss. There was only one pattern found at Leslie's, and neither the truss nor the pad were of sufficient lenghth and size. I should have done as well and better perhaps, by inserting and fixing a large cork into the umbilical ring. The truss did not meet entirely my expectation and it caused her much annoyance. But the umbilical hernia was not the only trouble. *Œdema* of the lower extremities supervened, which increased rapidly in size, causing great pain, threatening erysipelas and perhaps gangrene. To attain at least a temporary relief, punctures were made with a lancet, from which serum oozed out constantly and copiously. The abdomen was carefully examined, ascites searched for, but the enormous amount of adipose made such an examination fruitless. Fluctuation could not be felt, for the whole mass of adipose was quivering on percussion. The urine, moderate in quantity, was found albuminous only *one day*, few hyaloid casts present. Specific gravity 1020; it was neither acid nor alkaline.

Another grave symptom advened, which aided largely to complicate matters. Her menopause occurred, when she was forty-six years old, and now at fifty-four she commenced "to flow again." This was an hæmorrhagic but not a menstrual flow, the cause of which was difficult to determine. The heart's action was normal. Auscultation and percussion unsatisfactory, on account of the large amount of adipose, which is a poor conductor of sound. The pulse never exceeded 92. Temperature 98°–99°. Breathing from 24 to 36. Alvine secretion once or twice a day, always fecal, but never solid nor fluid, of dark color, and not attended with pain or tenesmus. Not being able to palpate any of the organs of the abdominal cavity, or ascertain clearly the condition of the heart, I had to reach the conclusion, that the return circulation is impeded by a *tumor* in the abdominal cavity, causing the œdema of the lower extremities, and perhaps ascitic effusion; the uterine hæmmorrhage may also arise from a tumor in the uterus or its appendages. A gynæcological exploration was proposed but refused. But after a few days better counsel prevailed, and the exploration was submitted to. Here I must state that I never made a more laborious and painful gynæcological examination. The hymen was not ruptured and very rigid—almost impossible to thrust my index finger through the orificium, but by main force I succeeded in dilating it and gradually introduced one, two fingers, but I could not reach the uterus at all, an account of the much enlarged labia both by œdema and adipose. I asked her married sister present, to aid me by pressing down strongly the contents of the abdomen into the pelvic cavity. This enabled me to reach the os, then the cervix and also the body of the uterus, which I found to be normal in every respect, and perfectly movable. This unexpected result puzzled me very much, and rendered the diagnosis more obscure than ever. The remedies hitherto given

failed to produce the desired effect. Pains, hæmorrhage and œdema remained unabated. I urgently insisted upon having a consultation, declaring that her case was too obscure and too grave, to cope with alone, but her kind and flattering reply was, that I had attended her and her family for so many years successfully in many perilous cases, she was willing to entrust herself to me exclusively. But I had determined to have a consultation with or without her assent. I invited my friend, the eminent gynæcologist, Dr. Wm. L. Barrett, to go with me. He made a most thorough examination with the speculum and sound; he made besides a critical study of her whole system, but also with only a negative result. We both felt satisfied that there was an obstruction in the portal circulation caused most likely by some visceral enlargement or a neoplastic tumor. The symptoms became more aggravated with every day, her sufferings increased with every hour. I was about making a second visit to her one day, when I met my friend Dr. L. Bauer who asked me *en passant* "how is your lady patient to-day?" Which patient do you refer to? was my rejoinder. He said Miss ——. How do *you* know anything about her, I asked. Why? I have been to see her. He made an apology and explanation, that a lady had come for him, to take him to a friend of hers, who was very sick, and withholding any further information. When he got to the bedside and found that she was under my care, he instantly withdrew. I at once requested him to go with me and favor me with his counsel. He most courteously complied with my wish. He made a most thorough examination such only as an expert is able to make, but with no better result. I told him I came prepared to make an explanatory paracentesis, for diagnostic purposes chiefly, and partially to palliate temporarily the painful œdema which commenced to assume an erysipelatous form, threatening sloughing. He advised against it; first, he doubted our reaching the abdominal cavity with an ordinary sized trocar, and second, it would most likely be a dry tapping. But he was impressed with the idea, that there was a tumor somewhere the same as Dr. Barret and myself thought. She became comatose soon after, and breathed her last next morning.

I at once proposed making an autopsy, which was stoutly resisted at first until I had resorted to a ruse, by saying, that not being able to state the true cause of her death, my mortuary certificate might, perhaps not be accepted by the board of health, and the coroner be required to hold an inquest. As soon as I could, I requested my two consultants to assist. Dr. Barret was promptly on hand, Dr. Bauer came later. I have never made such a deep cut in adipose before. It seemed nearly three inches deep ere I had reached the peritoneum. The abdominal cavity was opened and not more than a few ounces of serum escaped, *no tumor nor any abnormal enlargement*

of any of the viscera found. The uterus and appendages, the kidneys, spleen normal. The stomach, large and small intestines absolutely healthy. Where, and what was the cause of her disease and death? Presently it became manifest, but certainly in a form none of us expected or even thought of. The liver was the offending and diseased organ. It was atrophied, cirrhosed, a typical case of *atrophic cirrhosis of the liver.* The liver was very much contracted, the surface rugous, wrinkled, nodulated, covered with nodules from the size of a pin's head to that of a pea.

It cut like cartilage, with a gritty feel, the tubuli biliferi compressed. The portal orifice contracted, the vena porta stenosed, compressed. Portions of the liver have been put in Miller's solution, and are now ready for microscopical examination, for which an able histologist and pathological anatomist has been enlisted, the result of which will be given in due time. We were hurried in our work, we had no time to open any other cavity, very much to our regret, as the condition of the heart might have thrown additional light upon the pathology of this case. However, the condition of the liver was more than sufficient to account for all the phenomena presented in this case.

The treatment was not faulty, but resultless, which would have been the same, no matter what the remedies were, and how they were used.

DR. HILL.—Was there no vomiting?

DR. POLLAK.—Occasionally. She couldn't digest her food. The reports of good results are agreeable, but I think the reporting of our failures is instructive. In this case I couldn't find any indication for any kind of treatment. I couldn't account for the symptoms. We were certainly greatly mistaken. I thought it was a tumor of some kind and I was a little amazed when I found it was cirrhosis of the liver.

The Essential Factors of an Unsound Mind and the Mental Status of Guiteau. By C. H. Hughes, M. D.

The essential factors of an unsound mind consist of such a degree of psychical incoördination as places the individual out of natural harmony with his surroundings. Either by reason of congenital, or as it is learnedly called, teratological defect, or acquired disease of brain, "he is maladjusted to his environments." The mind is unsound whether the disharmony be little or much. But to possess that degree of unsoundness to entitle it to be called unhealthy, (*in-sanitas*) insane, the unsoundness must be so apparent as to place the individual markedly in contrast in his mental manifestations either with his former natural character of mind, or, if the insanity have appeared so early that the standard of comparison can not be himself, then his mental

displays must be in marked contrast with those of the rest of his family, ancestral or immediate, who are not insane. The sane members of the family are recognized and recognizable in the possession of an ordinarily free volition and employing it to regulate their mental displays in response to motives or influences acting on their minds from within. The insane man loses this and acts out his morbid impulses. His motives of action are mainly within the brain. It is in this resistless acting out of the morbid impulses which arise in the unsound mind, that disharmony to surrouudings is recognizable.

The insane man is inconsistent in his conduct, either with what he knows, or mankind in general considers the proprieties of life. He is out of harmony with society and with his natural self in speech or conduct, or both, either by reason of disease acquired or transmitted, or both combined and implicating the brain. The insane man's moral reasoning or emotional life, usually all of them, but sometimes and in some stages, one or more of his faculties have undergone a change, either by reason of disease entailed or acquired.

The essential factors of an unsound mind are, therefore:

1st. A morbid material substratum in the brain, either a congenital change transmitted to him through his ancestry or superadded to this, or independent of it, and acquired *de novo*, a diseased condition of the brain.

2nd. Such a degree of consequent psychical involvement as places the individual out of harmony with his natural self, and the mentally sane members of the family. The possession of mere eccentricities common to the family, though significant as pointing to a graver departure, at some time in the family history, from the normal are not here to be regarded except as having possible connection with remote insanity—the abiding mental scar, so to speak, of a once spent disease far back in the family history.

3d. This disharmony must extend itself to his relation with his surroundings.

A man is sane, whatever his abnormal mental impulses may be, so long as he conforms his mental conduct and thought to the mental, moral and social proprieties of life, and properly adjusts his mental movements to his environments.

The essential factors of an unsound mind embrace all those conditions which make it impossible for an individual to conform his mental actions to the demands of his natural, or what but for congenital disease must have been his character, and to respond in a natural manner to the impressions made upon his mind from without the organism.

Insanity is, therefore, a question of comparison with natural self or family and surroundings, and the condition of mind is the product of disease.

The question, why did Guiteau kill the President, already so

often asked and unanswered, will again and again recur, and as often as it is asked will the suspicion of his sanity obtrude as it came to the mind of his victim shortly after the tragedy, as the only solution of the crime compatible with all the light thrown upon it and the life history of the murderer.

In the time of peace, in broad day light, in one of the most public places in Washington, in presence of many witnesses, after deliberate and *prayerful* preparation, assurance that his pistol is true, cereful attention to his personal appearance, getting his boots blacked, in marked contrast with his indifference to appearance when, uncouth and half-dressed, with rubber sandals on feet and head bare, he sought of Senator Logan, the Paris consulship, prearrangement for the conveyance to the place above all other places where, safe from the fury of the mob, he is to be the protected hero of the day, the observed of all observers and "savior of his country," this man shoots down without hesitancy or precipitancy, or purturbation or malice, deliberately and in cool blood, the Chief Magistrate of the nation, as he walks arm in arm with the one who alone had offended him and who ought instead to have been his victim, if *vengeance* had been his motive.

Two shots are fired low enough to be sure of fatally hitting their distinguished mark. If mere *notoriety* had been his purpose, the assassin might have gained all of that and better by missing his aim, or slightly wounding the President. If *reward* had been his object, he would have struck his distinguished victim in the dark, covered up all trace of the crime, and been sure that it was known to those who were to pay him; but he had neither stipulation nor hope of reward; instead of this, he exultingly proclaims the deed and its motive and the absence of accomplices. "The President's nomination was an act of God, his removal was an act of God"—"I conceived the idea myself and kept it to myself"—"No one but the Deity and I are responsible"—God alone was his accomplice. "I am a stalwart of stalwarts," he proclaims, "a lawyer, theologian, and politician," "I was with Grant and the rest of our men in the canvas"—"Garfield has wrecked the grand old Republican Party and for this he dies." And this snubbed, unrecognized Lazarus, feeding precariously off the crumbs that might fall from the political table, is its self-appointed, heaven-commissioned savior. To this universally recognized "crank," the republican party is the country and the dissentions in the party were disrupting the nation. He has averted in the insane act, a civil war, which was not impending and brought peace by making greater confusion. For this he insanely claims the stricken and enraged nation's plaudits and protection, and the approval of God. "He seeks no escape in flight, delivers himself up to justice, acknowledges the crime laid to his charge, describes the state of mind which

led to its perpetration." (Esquirol Mal. Ment.) "Even his premeditation is peculiar.—(*Ibid.*)

He has written a book entitled "The Truth," which is designed to save souls." This "removal of the people's idol," whom his hand has smitten unto death" "will promote its sale." Strange motive! He holds up his head and his hand that he may be seen and known of the country for his great deed!

A year of trial for his life as the deliberate slayer of one of whom he "thought as much as he did of his friend General Burnsides" passes, and he tands a convicted assassin on the gallows; his claim of divine pressure and inspiratton has been dispised and rejected, yet undismayed and confident in his mission, he still proclaims himself God's man and the savior of a country that has not yet appeared to any other mind to be in peril, who is about to receive his reward in "paradise and glory."

As the hangman's noose tightens, it is not an utturance of regret or remorse that escapes him, as would have been natural in a sane man but an unnatural and insane song of glory! and his last dying word is a hallelujah, absolutely unwarranted by anything in his normal life history and completely out of harmony with his antecedents and environments.

Never did martyr at the stake seal his convictions in blood more than has this deluded victim of a morbidly unstable and wrongly wrought organism confirmed his insane faith in his fatal folly by dying speech aud conduct, yet he did it without either the cause, the incentive, the justification or the sustaining following or fraternity of martyrdom. All suspicion of his having played a part is now surely settled. The question of simulation is dissipated in the manner of his death. Those experts were right who said he was acting out his true character in jail and at the trial. But the testimony that slew the slayer of the President was based on the assumption of the now disproved simulation.

Forty years of a singular erratic life, mingled with good resolves and good and evil deeds, but without previous capital or other great crime save the strange one of open and confessed adultery for the purpose of securing a divorce from his wife at a time when he seeks and needs public confidence in his professions as theologian and lawyer, ends in unprovoked, causeless, remorseless, unvengeful, unnaturally justified murder of the nation's President, in a time of peace which the murderer imagines to be a time of impending revolution and ruin; a murder which brings upon him the maledictions of mankind, yet gloried in by the murderer as a great salvation sent of God and approved of the American people, and he the heaven-commissioned and earth-applauded savior who has averted the impending crisis and will be cleared by God's aid by the awful crime, to become the possible future president of the grateful republic he has so signally served! Cleared of the insane crime through the plea of insanity, not because he is insane; he vigorously denies insanity, but

because *legally*, his inspiration will be so regarded by the jury and so ruled to be by the court through providential guidance even though he plead the cause of his insanity himself. A lawyer boldly facing judge and jury and, not by mimicry of madness as a sane man would, but by vehement and ingenious speech as coherent as he is capable of making, seeking to establish his insanity by proof and precedent! Yet, though knowing by experience the necessity for proof and what constitutes evidence in law of which he is by profession an exponent, and endeavoring to establish his case upon his own testimony alone, in his own behalf, unable to discern what, in his best mental estate was quite familiar to him through experience at the bar, that such testimony was of no value. The delusional thralldom of this morbid mind is here most apparent. Was there ever a more insane act and action than Guiteau and his insane plea of "spiritology and Abrahamic insanity, not craniology," in the late seriocomic performance at the Capitol? How the insane incongruity of the man and his act, and his morbid disharmony with his surroundings could escape expert detection and fail to make its impress on the Government medical witnesses, as it did not fail to do upon others, seems most strange.

How natural that such a man should sleep soundly and fatten and show no remorse for the first (and causeless) murder of his life, and claim to the last as in the beginning that God inspired the act, and see the providence in his behalf in the lingering agony and final death of the President, and in every other movement about him, where every body else saw only vengeance, reproof and the approach of his doom!

It was "God's act and God will take care of His own," was not only the consolatory utterance with which he justified the bloody deed from the scaffold, but it is the key that unlocks the masked interpretation of his conduct in the court, at the time of the killing and during his life in prison. This is the correct and only solution that comports with all of the facts.

Doubts may yet linger in minds reluctant to concede cerebral disease in explanation of the anomalous conduct of this insane character, but the sincerity of his convictions must be conceded, and as time passes, his insanity will be admitted also. No explanation but insanity adequately explains.

To deny that he was deluded on the ground that his insane feelings and beliefs were "derived from the teachings of others and not the result of disease," is rather sophistical than logical. He had acquired peculiar beliefs at the Oneida Community, but there was neither murder nor any excessive amount of self-sacrificing patriotism in the creed of that Community of Perfectionists, nor was assassination a plank in the platform of that party to which Guiteau professed allegiance and in whose behalf he was suffered, in the canvass to make, but not to repeat, a "cranky" speech to a negro audience.

This logic is far-fetched and of the kind that necessitates the unsustained and unsustainable theory of feigning to confirm it. The antecedent experience of all insane persons, more or less, shapes their delusive conceptions. The believer in ghosts and witchcraft actually sees ghosts and witches when his brain is morbidly touched. Spells, charms and incantations, electrical injuries, spiritual visitations and inspirations become real to those lunatics who, when sane, believed in their existence. The difference now is only a changed and special and intense relationship of these supernatural and mysterious agencies to themselves. Lunatics literally lose their heads in times of revolution when the heads of others are being shot off, and carry them under their arms; stories of snakes and lizards being swallowed in the dark, coupled with abnormal intestinal sensations are often the insufficient, but none the less real rational data from which spring the not unfamiliar insane delusions that the belly is peopled with reptiles and living things innumerable. Suppose this lunatic did not name the delusion of the resistless pressure of God being upon him to do the unnatural act, in strict conformity with psychological parlance when he called it an "inspiration," the delusive feeling was there all the same and because he designated his delusion in phraseology familiar to him, does not disprove its existence. It was the most natural thing, when we consider Guiteau's antecedents, that he should have done, to mistake the insane feeling for an inspiration. His fanatical training at Oneida made insanity a ready possibility to him.

It has been said that Guiteau's delusion was an after-thought, a defensive suggestion, because, in describing the insane pressure of God upon him, he did not use the word inspiration to all to whom he spoke, and he spoke always with the disingenuous candor of insanity. But he always spoke of the pressure as coming from God; and though he did not characterize it as an inspiration when first speaking to Dr. Gray, he did so to Dr. Stearns. It is absurd to suppose that a sane man, after planning a deliberate murder from which he was to escape on the plea of insanity, would have neglected so important a matter as that of impressing the asserted assumed delusion upon all who came about him. The word inspiration was a familiar one to Guiteau, expressive of preceding morbid experiences at the recurrence of his delusional exaltation, when schemes gigantic possessed his mind, like the conception of the great theocratic daily which he and Jesus Christ were to conduct in partnership, in which only the genius of Charles Julius Guiteau was required to make the Almighty strong enough to evangelize the world and bring about the long delayed millenium.

Guiteau's simple candor of manner regarding everything appertaining to his delusion in these interviews and confidence in his cause must now convince the candid, after time for thoughtful reflection, that it was the verity of disease and not the subtile

design of the simulator that formulated his speech. He even admitted to Dr. Gray, that, had he received the Paris Commission at any time prior to the time when the pressure to kill the President came upon him, he would have taken it and gone. And this is the simple truth, but would the feigner of insanity have said so? Never! Simulation concedes nothing that plainly thwarts its purpose. He was never disconcerted at anything he said though it appeared to others as showing too much sanity; nor did it disturb him that he "gave himself away so often," to use a criminal phraseology, in needlessly disclosing a depravity of character to his prejudice and strangely inconsistent in those in whom we expect consistency—with his pious professions and labors. No feigning criminal would ever have acted like Guiteau. He must either be categoried with the latter or classed with the insane cranks, and in the popular opinion, a crank is a lunatic who is sane enough to hang if he kills a President, but insane enough for the asylum if he shoots at and misses a Queen, an actor, or hits and fails to kill an asylum superintendent.

Guiteau's life, inconsistent and inharmonious as it was in everything else, ended on the gallows in consistently insane accord with his acts and utterances during his trial and incarceration. He was there the same and publicly conceded "crank" when about to give the signal for the fatal drop as when he stood up to receive his death sentence in the court room, and hurled the defiant anathemas of God, "his ally and inspirer," upon "all who had taken part in the unrighteous verdict against God's man." "May God have mercy on your soul," he responded to the Judge's commendation to Heaven's mercy on that last eventful day of his trial and sentence, "I shall have a glorious flight to glory;" and this word "glory" is the last to escape his lips as he swings off into eternity, yet nothing about him during the last year of his life would have inspired any sane man with the faintest hope of glory.

Whether remembering on this last day to pay the last dime due his washerwoman, the payment of which had been deferred from the day before, or giving direction on his last day on earth about the posthumous publication of his insane books on "The Truth and Removal; or the Life and Works of Charles J. Guiteau," or giving directions about the monument to his infamous memory, which his insane imagination sees erected by a grateful posterity, he is always and ever the same, insanely self-absorbed, egotistical, deluded hero of a tragedy, which to his morbid mind is approved and justified of Heaven.

The bad education theory, the simulation theory and the total depravity dodge have played their parts well in bringing Guiteau to the gallows, but Guiteau about to die, dead, dissipates them all. "To this complexion must it come at last," Guiteau died insane.

Dispassionate sanity seeks its victim in seclusion or sur-

rounds itself with safeguards for escape based upon rational appreciation of environments and regard for its reward and usually has accomplices. It does not constitute itself a thankless, unapproved, unrewardable, unvengeful, unrewarded, uncommissioned murderer. It does not openly kill in cold blood when other methods are possible and safer with no way of escape from arrest or adverse testimony and without other justification than the delusive one of divine pressure or inspiration, and the delusion that a nineteenth century jury could be brought to believe a self-asserted delusion would be taken as proof of its existence. The same delusion that nerved the arm of this natural coward to do the basely bold deed of blood so vastly at variance with his natural cowardice, of character and which, but for his delusion, he would have discerned was in defiance of public sentiment and the law of God and man, lead him confidently to rest his vindication before a jury of his enraged countrymen who, but for the formal restraint and protection of the law would have put him to the rack and torn his limbs asunder.

To this delusive, insanely unwaranted confidence in God, born of Guiteau's morbid and insane egotism, is to be justly attributed the singular and incongruous spectacle of a prisoner arrainged for a recent, unjustifiable and atrocious homicide of which he vauntingly proclaims himself the insane author, acting as his own lawyer, protesting against or approving proceedings, accepting or rejecting jurors, balking and embarrassiug his own counsel, complimenting the opposing to the disparagement of his own attorneys before the jury, citing precedents of law, interrupting and supplementing the words of the court to his own harm, spoiling the effects of the best speeches in his behalf on the part of his counsel, and giving them no aid whatever in the conduct of his trial; fulminating proclamations to the people and appeals to the legal profession for aid, demanding the best legal talent in the land as his right, promising large fees, which he expected to come indirectly from the horrified and outraged people! and directly from the sale of his book and all of the familiar and insane incidents, the untimely and shocking levity, the damaging voluntary statements of the prisoner and his insane actions and justifications at the trial. To insanity and nothing else can be reasonably attributed all the delusive conceptions, the claim of the pressure and approval of God and inspiration, the absurd convictions, *mal à propos* utterances, vehement impulses and morbid violence of speech and action, so often manifested to his detriment during his trial.

The character he claims is one which rational humanity only concedes to the saints. A sane man would have known the value of consistent purity of character, but he makes no effort to even assume it. The prosecution prove upon him practices at times in his life far from those of angels, making the most of every *faux pas* and peccadillo, while the defense blindly omit to

record his aspirations after good, his good deeds, and better impulses and virtues, spasmodic often, it is true, but far better than they were shown to be, and to the credit of one so inherently unstable in his mental organism. But he can discern nothing so adverse that it will not be dissipated when his time comes to "get at the jury" with his triumphant vindication, "the true theory," as he calls it, and when the speech is finished it proves to be of a piece with the other "babbling," characterized as senseless, by the court and which along with Guiteau's opening plea would have procured for any other lawyer, at any other time and place, a *commissio de lunatico inquirendo.*

The commission is holding its session now and the higher court of impartial history will soon record its final irrevocable decision, removed from the disturbing incidents that embarrassed and fettered impartial opinion during the trial of the lunatic.

Leaving the tribunal that has established the sanity of this man, let us go again to the scaffold. Here the prisoner is standing in the presence of the highest court of last appeal, before whose Omniscient Judge all minds are open and simulation avails nothing. Here he died as before the other court he lived, maintaining his convictions, his inspiration and his *sanity* to the last predicting that the nation will go down in blood and denouncing his wrath upon his murderers from the Executive to the executioner. He reads in a clear, strong, confident voice, the fourteen verses from the tenth chapter of Matthew, which conclude the warning that "Whosoever receiveth a prophet in the name of a prophet shall receive a prophet's reward, and he that receiveth a righteous man in the name of a righteous man, shall receive a righteous man's reward," and invokes the country to make no mistake. "It is not Guiteau who is in trouble. It is the people of the United States who are on the brink of crime. Guiteau, the inspired, is all right, but those who hang him will wish they had never been born," and warns Gen. Crocker and his men to have nothing to do with hanging him, for the wrath of the Deity will be searching and terrible to behold.

Before his execution he makes the most careful preparations that he may go decently and everything be done in order. He directs a "clean, close shave" and prescribes the order of procession to the scaffold; directs that he may be clothed for the final scene in robes of befitting white, emblematic of his purity and destiny, denied this, he will go to the gallows *en dishabille*, in white shirt and drawers; he omits not the slightest minutæ, takes his regular bath and exercise; his meals and sleep, ordering his dinner an hour earlier than usual—eleven oclock—and asks the warden "to hang him sharply at twelve oclock and go ahead with his murder." The scaffold is carefully examined by his direction that there may be no bungling, and that he may go off gracefully at the right time, when he has said his insane say to the world. He is punctilious about his time of taking off being

assured at the moment best fitted for tragic effect, when his devotions are just completed and song of glory ended, as he displays about the neglected ice on his raspberries on the morning of his execution and about the disposal of his patriotic body, being extremely particular that it should not be exhibited for gain.

Nothing is too insignificant for "God's man's" attention on this last day in the world that is to enshrine his memory among its great patriots and statesmen! He kisses his niece through the bars that "it may go that way on the record" of his martyrdom; brushes away the involuntary tear which comes at the reception of his sister's bouquet, with the remark as though he were about to die a great death, "God's man must not weaken," but sheds not a tear nor heaves a sigh of regret for his illustrious victim. Once let the people be educated up to his theory, he thinks, and "they will hail him a second Nazarene." The epitaph on his tombstone shall be "patriot and Christian." "He cares nothing for his body but he does care for his nation."

A poem on "Simplicity, or Religious Baby Talk," written ten o'clock on the morning of his execution, he reads with emotion; attempting to sing it, he is overwhelmed and breaks down.

To the President he addresses, the day before his execution, his conception of the chronology of biblical inspirations and retributions from the creation of Adam to the coming and crucifixion of Christ, and His second advent, which he places at the year 70 when Jerusalem was destroyed, and demands of the President his liberty, saying: "I am God's man and do not forget it, Americans, and ye men of power, lest ye get into hell as did the Jews. Better let me out. I am an inspired patriot. I saved my land and party. The men that keep me here shall rue it—God keeps the account." Finally, and in a loud tone and with the distinct and deliberate emphasis of conviction, he prays: "Father I go to Thee and the Savior. I have finished the work Thou gavest me to do and am only too happy to go to Thee. The world does not yet appreciate my mission, but Thou knowest it. Thou knowest Thou didst inspire Garfield's removal and only good has come from it." * * "Thou, Father, didst inspire the act for which I am murdered. This Government and nation by this act, I know, will incur Thy eternal enmity as did the Jews by killing Thy Man, my Savior. The retribution in that case came quick and sharp, and I know Thy divine law will strike this nation and my murderers in the same way. The diabolical spirit of the nation, its government and newspapers towards me will justify Thee in cursing them, and I know that Thy divine law is inexorable. * * * And now my blood be on them (the Press), this nation and its officials. Arthur, the President, is a coward and an ingrate * * his ingratitude has no parallel in history. But Thou, righteous Father, will judge him. Thou knowest me, but the world has not known me, and I go to Thee and

the Savior without the slightest ill will towards a human being. Farewell, ye men of earth." This paraphrase of the prayer of the Crucified is said to have been commingled with maledictions, which more clearly revealed Guiteau's insane inconsistency, but his colored spiritual adviser, by threats of deserting him, succeeded in eliminating some of its more insane features.

If the dying words of a sane man are valid testimony, we cannot refuse to give to this deluded wretch's insane utterances their just weight. With his life history thus completed, it can no longer be believed "that he was simply an eccentric criminal, who had been playing a part in court that might at least (if not humbug the experts), affect the jury and gain for him disagreement."

At several points, it is reported, he paused and endeavored to impart increased emphasis to his words by the peculiar facial impressions so often observed during the trial when he was angered at something said or done. This was particularly noticeable when he alluded to President Arthur, and when he declared that this nation would go down in blood. At the conclusion of this prayer, he reads the silly verses beginning: "I am going to the Lordy," to which we have referred and which he said "represented a child babbling to its mamma and papa." and "might be effective if set to music."

Is it not a little too much to ask of psychiatry, now that this lunatic's career is ended, to pronounce him a sane man? Had this unprovoked, motiveless, remorseless, insanely vindicated murder had for its victim any other than an exalted government official, a most justly beloved Chief Executive, or had Guiteau's insanity displayed itself in harmless proclamation or threat, he would not have been pronounced insane. But the horrible deed, done by a mind so insane that it regarded itself as an exception to the general rule of law with which he was familiar, that the penalty of unjustifiable murder is death, that it believed the act would receive universal approbation, and that he was bound by resistless pressure to do it regardless of consequences to himself, which in its very nature bears the impress of a madman's hand, is so horrible that the universal cry for vengeance which it excited, so drowned the voice of humanity, that the plea for a stay of execution ever so brief could not be heard.

It is greatly to be regretted that the government did not institute and carry out to a satisfactory conclusion, a dignified, critical and impartial inquiry into the mental status of Guiteau even after his conviction. His conduct and speech towards the close, if they were not before, were more than sufficient to justify the suspicion that a grave mistake had been made in pronouncing Guiteau sane. Had it done so, a great blunder would not now have blotted a page in our judicial history. It was due to this victim of cerebro-mental disease that the government should have ascertained, beyond doubt, that the assertion of feigning was founded

in fact instead of a theoretical conception, which arose in the mind of Dr. Gray and others to explain away, otherwise inexplicable facts incompatible with the idea of insanity.

But the sacrifice is made and vengeance is complete. The angry god of public opinion is appeased and the public rejoices in its work. It cannot be charged that we seek by scientific refinement to thwart justice or rob the fair Goddess of her due if we now inquire.

What description of insanity will exclude this lunatic? And we are compelled to answer, *not one*, unless it be specially framed for the purpose of exclusion.

Not one, unless it be so exclusively somatic and physical as to exclude all evidences beyond the dissecting table, and will not find them there unless they are such as indicate the *results* of the disease in its extremest stages of dementia or mania. None whatever, if "that which makes insanity a subject of study is manifestly the symptoms which indicate its presence."—BUCKNILL and TUKE.

None whatever, if "insanity is a condition in which the intellectual faculties or the moral sentiments or the animal propensities—any one or all of them have their free action destroyed by disease—whether congenital or acquired;" if "bodily *disease* including *defect* is to be regarded, if it be a disease of the brain, idiopathic or sympathetic, affecting the integrity of the mind."—*Ibid.* Or, if even we "add to the foregoing definition for forensic purposes," that "the cerebro mental disorder must be such as to suspend or *impair* the action of the healthy will" (*Ibid.*), it is doubtful if Guiteau could be excluded.

None, whatever, if insanity is, as it has been defined with approval of the best writers on psychiatry to be "a departure without adequate external cause from the states of feeling or modes of thinking, usual to the individual who is in health."—GOOCHE, COOMBE and RAY.

It will hardly be contended that there was even a shadow of an adequate external cause for the murder of the President, or that assassination under divine pressure or inspiration was the natural mode of thought or feeling of Guiteau, though his delusive life began far back in his insanely singular career.

It was not necessary that Guiteau's insanity should have come upon him through auditory or visual hallucination like the *sane* change of character of Saul of Tarsus, or the "voice, as of a trumpet from behind" that moved the Apostle John, in order that Guiteau should be recognized as the victim of a delusion. Delusions may come through pure psychical hallucination and a feeling of resistless mental pressure may be to some morbid minds as much an inspiration as the visible face or the audible voice of God, is to others. No true student of morbid psychology who has observed insanity in all of its phases needs to be told this.

Dead-house definitions have given us the sequent pathology of the most marked and advanced forms of insanity, but the post-mortem revelations of the scalpel have not yet taught us half so much as the *ante-mortem* disclosures of the psychical symptomalogy of this affection and not more, practically than the test-tube, the microscope, the sphygmograph and other aids to correct interpretation have done. We do not diagnose insanity by these means, though we employ them as confirmatory aids as we likewise use the scalpel.

We do not diagnose insanity on the dead but on the living subject, as we determine yellow fever, chorea or tetanus, though we may with profit, on the cadaver, study its somatic causes, sequences and accompaniments. Dead house experts may be used to dust the eyes of the populace when it is desirable to hang a dangerous lunatic, and may serve, as doubting Thomas, in great crises when the public and not the patient needs the benefit of the doubt, and subserve a useful purpose in inspiring the inexpert with awe. But living lunatics have their signs as well as dead ones—the morbidly acting brain is often more of a revelation than the brain stilled by death. It is in the actual observation of the insane (while they are living and insane) that the true characteries of the disorder are comprehended. "Remove the mental and retain the physical signs" (when the latter are prominent which, in chronic insanity especially, is not the case), "and the patient would be esteemed sane, alike by the ordinary observer and the medical man."—BUCKNILL and TUKE.

We do not even discharge lunatics from our asylums as recovered when the physical evidences of physical disease only disappear in them. Mark Gray is still retained at Elgin without other evidence of disease, sufficient to establish his insanity, than the persistent delusion that he is still the "Melancholy Dane," mimicked by Edwin Booth, and justifying the shot which imperilled the great tragedian's life; Freeman is still (if living) at Danvers, with no other reason for his detention there than his abiding delusion that he was called of God for the unnatural, ungodly purpose of killing his child. Brown, who shot at Queen Victoria and ——, who shot at Dr. Gray, were insane, regardless of physical signs.

It would take many a page to name the insane retained in, as well as committed to asylums, on the psychical evidences of cerebral disease alone. They are in Utica and Oshkosh, in Hartford and Nashville, at College Hill and New York as well as at St. Elizabeth and Boston.

They are everywhere, and if they are, the physical symptoms cannot be placed equal with the psychical, for the psychical are characteristic and never absent; while the former often *are*, and when present, are at best generally only confirmatory signs, when we are in doubt as to simulation in chronic cases especially. "The deviations from the normal standard of physical health

are valueless for the purpose of diagnosis of insanity in general or for any one form of mental disease," (*Lockhart Robertson's Greisinger, p. 161.*) notwithstanding their great importance as regards etiology and treatment.

"But he twice previously tried to take the President's life and was rescued from his purpose. He knew what he was about. He was able to resist the propensity then. Why not resist finally?" This is the history of nearly all destructive insanity. First, the unbidden morbid impulse resisted, then recurring again and again, and, *finally, resistless;* then the culminating suicide or homicide, or the miscarried attempt and the arrest and commitment to the asylum. Lunatic asylums are the cemetaries of unexecuted morbid impulses.

"But he reasoned on the subject." It would make *his friend* Arthur, President, (who never gave him a friendly recognition). "This is not murder; it is a political necessity." "It has to be done as a matter of duty"—*as a matter of duty.* Here the insanity of his motive is revealed again. What rational human duty was on him to murder the President? But is it anywhere on record that the insane do not reason? They reason very shrewdly sometimes, though often disastrously. "They do not so much reason wrongly as rightly from wrong premises," as Locke observed, premises formed in delusion.

The literature of insanity contains many examples of the worst of lunatics who could reason sensibly in their trained capacity of clergymen in the pulpit, judges on the bench and lawyers at the bar. The case of Col. M. and the Rev. Simon Brown, cited by Ray, and the judge and divine referred to by Rush, are old and familiar examples.

"The mental disability of the insane may be evinced, not in failing to recognize the illegality of their acts, but in considering themselves as absolved from the obligations of the law. They move in a sphere beyond the reach of the ordinary motives of human conduct, and are a law unto themselves."—*Ray, Prelim. Views, p. 45.* It is thus they reason. Thus reasoned Guiteau: "Garfield has wrecked the grand old Republican party. The Deity and I avenged the crime against the country."

"But he prayed over it." So has many another lunatic before his morbid feeling has taken shape in a resistless delusion. Asylum records and psychiatric literature are full of confirmatory examples.

The following illustrations taken from a number of similar import, reported by Marè, and familiar to all alienists, having been greatly added to by subsequent writers, will suffice to illustrate:

M. R. ——, a distinguished chemist and poet, of a disposition naturally mild and sociable, committed himself a prisoner in one of the asylums of the Fauxburg St. Antoine. Tormented by the desire of killing, he often prostrated himself at the foot of the

altar, and implored the divine assistance, to deliver him from such an atrocious propensity and of the origin of which he could never render an account.

A riband ligature lightly tied about his thumb, at his request, "was sufficient to calm him," but he finally finished his career by trying to kill one of his friends, and perished in a violent fit of maniacal fury.—*Prich. on Insan., Bell's Library, p. 275.*

"But," says another advocate of Guiteau's sanity: "Guiteau's egotism was so intense and inordinate that he saw nothing like other people exactly." *Exactly*, his egotism was a delusion of itself. In confirmation we quote one of the most experienced alienists: "Instances have been referred to where the motive seemed to be a desire to excite public interest and curiosity and to obtain *notoriety*. I am disposed, however, to regard such cases as examples of real insanity. I do not think that any sane person would sacrifice his social position, and otherwise injure his prospects in life under the influence of such a motive, and that for a purpose yielding no advantage whatever. A deliberate sacrifice of substantial interests, for a position generally considered as damaging, if not odious, and one which can by no possibility minister to the welfare of the subject, is of itself an evidence of unsoundness of mind,"—*Chipley on Feigned Insanity (Amer. Jour. of Insan., 1865, p. 6).* "But," says Dr. Stearns, "the love of notoriety has little, if any influence with the insane."—*Arch. Med., June '82. p. 301.*

Yet Prichard and all other authors, besides Chipley, have noted an intense and inordinate egotism as the chief characteristic in some of their cases of insanity. Egotism may be morbid as well as a propensity to steal or destroy, and when it allies itself with God in flagrant crime plainly denounced in the decalogue, and claims the instigation and vindication of Heaven in what God only forgives in a lunatic, it is the offspring of insanity.

A century ago Dr. Arnold, one of the best of English observers, described the mania of vanity or self-importance; and later in the first quarter of the present century came the clinically well founded descriptions of Bayle, Calmiel and Dayle, of general paralysis, founded as if it is in a special intense morbid egotism which makes Calmiel's Sovereigns of *Les petites maisons* a possibility.

Dr. Chipley was the peer of any American Insane Hospital Supt. in his day, as an observer of the characteristics of insanity, and his opportunities for clinical observation extended over a third of a century.

Again let us call up the voice of the dead. This time it shall be the distinguished physician-in-chief of the McLean Asylum, Mass., Dr. John E. Tyler: "We all know that with the insane *self* becomes the central point of interest—the important consideration and the authority." * * * * "We all know how soon it is that his relations to everything and person are more or

less changed by the different estimation to which he has unconsciously grown to hold himself. Upon any subject within the circle of his disease, fact and external circumstances show little or no influence with him. His convictions come from his own personal laboratory. They are original, sometimes they are strictly intellectual results, often they grow from personal emotion. No sane man is ever half so sure of any most palpable truth as an insane person is of the infallibility of his own convictions. 'I know it is so,' and upon this he rests without a shadow of doubt. 'I know it is so.' and this is more to him than all the facts and logic of the universe. Because his own opinions are not received or are even scouted, never leads him to distrust or examine them or even for a moment disturbs the ineffable complacency of his belief."—*Tyler's Tests of Insanity*, (*Amer. Jour. Insan.*, Oct., 1865.)

Does not this fittingly paint Guiteau? Ray and every writer of merit may be searched in vain for contradictions. It is of such morbid mental material as this that religious lunacy is fabricated, as we often see it in the hospitals and not infrequently out of them. Like the perfectionist woman who sends her babe to glory with morphine, or the faith-lunatic Freeman, who transcends the faith of Abraham and kills his child.

It is a fitting portraiture of that not unfamiliar phase of morbid unnatural egotism, which reveals itself it bringing obscurity into unnatural, abnormal notoriety so strangely maladjusted to its natural environments, that when seen, all the world notes it as unnatural and singular; which makes timidity audacious and mediocrity bold as the murder of Kings and Presidents in the name of God and the people and the heaven appointed, but, otherwise unauthorized avenger of people oppressed; which feeds on the froth of unfounded expectations, as mankind in general on a full diet of solid food; which takes courtesies for compliments and civilities for merited praises, and seeks consulships and other government positions without capacity or warrant or claim of real political service, and couples its applications with disclosures of delusional matrimonial expectations which if they were founded in fact, the discretion of ordinary sanity would prompt to withhold as not fitted for state secrets, which allies pigmy intellect with the Deity in schemes Titanic and impracticable and disapproved of heaven; and claims, without thought of irreverence or blasphemy, partnership with God and the pure Christ, in things which defile body and soul and which are condemned in the decalogue and by every recorded word and deed of the Immaculate.

"But he was immoral and did not pay his board bills or railroad fare, sold an oroide watch for a gold one, collected his clients' money sometimes, and kept it, etc., while writing and talking of his devotion to Christ, etc. He was inconsistent." Exactly, if he had been a normally converted christian, he would

have conformed outwardly at least to the requirements of the character he professed. But when did morality become a test of insanity? If that time ever comes, lunatics may go out and the people go into the asylums.

"Another sign of mental disorder," continues the authority from whom we quote above, which has been too little estimated and often estimated wrongly, "is the inconsistency of the insane. One of the notable and distinctive characteristics of insanity is its inconsistency with itself."—*Ibid.* "But his delusion was an after thought," says Dr. Gray; but this is contradicted by Dr. Stearns. But suppose it did not possess him in full force from the beginning, "almost the entire pathogeny of mental disorders," says Greisinger (*Mental Ap. on Health and Disease*), "consists in psychical perversion produced by internal causes, and these perversions finally give rise to delusions."

Delusions do not come upon the insane from the first and overwhelm like a tornado, as it was insisted that they should have come upon Guiteau.

"But there was no change of character," says another advocate of Guiteau's sanity.

The change of character in the insane shows itself either in the intensification or reversal of the natural manner of thought, feeling or action.

They must be blind indeed who can see no change of character in this homicide and in the conduct of the murderer in court, or his morbid antipathies to brother and counsel and natural friends and in his altered attitude and demeanor towards the world. How long had he been proclaiming himself the savior of the country and killing people who stood in the way of its glory, etc.? When before had he regarded himself as the avenging Nemesis of the Republican party and the nation? Strange natural character this! So strange that all others like him during his trial were promptly sent off to the most convenient asylum, and always will again whenever and wherever found, if public policy does not demand a sacrifice regardless of mental condition. He was disappointed at a preceding presidential election. Did he then imagine the country wrecked and the duty on him to save it by assassination? He never in all his life, under delusional or other impulse, fired a shot at mortal before!

If the defense, in his trial, had appreciated the importance of showing insanity, in the medical sense, as thoroughly as the prosecution appreciated that they had a medical question to deal with, there is no doubt but the time of the beginning change in this man's carreer had been more plainly set forth and the incubation of his insanity made clear. It began in sexual exhaustion (and secret vice probably) and emotional excitement at Oneida.

How do these acts and all the immoralities attributed to him comport with the "pledging of the energies of his life to God to do all that within him lies to extend the sovereignity of Jesus

Christ, by placing at His disposal a powerful daily paper" to "be an *illuminator*" to point out "the devices of satan's emmissaries and let in the light of truth upom men's souls," to "battle the corrupting influences of Anti-Christ," and "reconcile the conflicting interests of the word and combat its errors," as he declared his faith and purpose in 1865.*

Guiteau's father was a consistent religious fanatic, attesting his faith largely by his daily walk and conversation. The son was an inconsistent lunatic, as the religiously insane usually are, claiming public confidence as a man of God, and inspired, without compliance with the scriptural and publicly appreciated requisites, to establish the public confidence he sought. His was a dead faith without works and culminating in a deed which only devils could affirm, and claiming for it the favor of Heaven. There was nothing in the teachings of the Oneida community that approved of murder; nothing in the nature or natural habits of thought, feeling or action of Guiteau in his sane though fanatical state that made the crime natural for him any more than there was in his father, and but for the further instability of mental organism acquired through the circumstances of his birth and subsequent health-depraving influence of his residence at Oneida and precarious manner of living since, impoverishing his blood and starving his already illy-nourished and irregularly acting and congenitally unstable brain, the morbid delusive impulse so foreign to his nature had not arisen and dominated him till the death of President Garfield was accomplished, bringing sweet peace to the assassin's morbid mind only, while a tumult of consternation "took possession of the whole country."

But he had no physical disease? Let us see:

"He was badly nourished and anæmic and with a pulse of 88 on two occasions," testifies Dr. Hamilton; "pallid and rather delicate looking," says Dr. Folsom; "suffering from malarial fever," testifies Dr. Young at the time of the tragedy, "and had latent syphilis, if his own statements are to be credited." Surely here is enough physical disease for a basis even for the most somatic. "Yet it constantly happens that associated with trifling changes there is great mental disturbance and but little with more serious lesions."—GRAY.

Dr. Gray also in a paper on "The Dependence of Insanity on Physical Disease," (*Amer. Jour. Insanity*, April, 1881), gives some good examples of insanity dependent upon anæmia, and they well illustrate his fourth proposition which he classes among the "fundamental starting points," viz.: "that insanity more frequently has its primary origin in pathological states outside of the brain, than in primary diseases of the brain."

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*A chapter from Dr. Workman's pen on "Insanity of the Religious Emotional Type," *Amer. Journ. of Ins.*, vol. xxvi., July, 1869, would be interesting reading, but would too greatly prolong this paper.

All observers confirm the fact that anæmia and depravity of blood are potent causes of insanity, and Guiteau's manner of living before the tradegy, was well calculated to starve and deprave his blood and exhaust and render still more unstable, his hereditarily neuropathic and unstable mental organism, as it did.

But good and experienced men saw naught but feigning in Guiteau till the final scene, I was about to say upon the cross, for the lunatic evidently died in the belief that he was being unjustly sacrificed. And this brings us to Dr. Chipley again, and his experience-founded observations: "We must not then be too confident, or demand too much from the present state of our knowledge of the workings of the human mind and its abnormal manifestations. Unreasonable demands are too often made on the psychological expert. Peremptory decision is frequently required when we can do no more than balance probabilities."

The Government demanded a peremptory decision, and the probabilities were balanced against Guiteau while he lived. Now that he is removed from the arena of his delusive conceptions, they are balanced in favor of his insanity.

At least for ourself we so balance them. With the additional light reflected from the scaffold we see more clearly the true psychological meaning of the strange tragedy with its attendant details—the willing surrender, the letter, "To the White House," proclaiming the "sad necessity of the President's removal;" Guiteau's freedom from ill will, etc.; his stalwart pronunciamento and demand on Gen. Sherman to order out his troops and take immediate possession of the jail, whither Guiteau had predetermined to go; his authoritative bestowal of the prospective chiefship of police on the police officer who arrested him; his statement that "Sherman would come and take charge of matters;" that "Arthur and those men were his friends;" that he was "with Grant and the rest of our men in the canvass;" his singular satisfaction with the frank confession of and candid confidence in every body as to how he is to be vindicated on the plea of insanity, the whole affair—denial of accomplices and no subsequent attempt to implicate others; his groundless expectation of public gratitude, reward and applause for a crime which, from the moment of its commission connected his name (as a sane man), with eternal infamy and ignominy—are proofs so plain, that we need not the illumination of a cadaveric examination to confirm our conviction of insanity.

Post mortem examination can neither cast light nor shadow on the diagnosis. Had Guiteau been permitted to live, as he ought to have been, secluded within the walls of a criminal insane asylum until his disease had run its course and he had died of his insanity, and not of some intercurrent disease, we might have expected to find more marked cerebral lesion in this undoubted victim of cerebro-mental disease than the autopsy has

thus far given, though they are as great as has been found in other grave cases of insanity.

Whatever may be the further microscopic revelations, whether sufficient to satisfy the most somatic alienist or not, Guiteau died insane and he was as insane while living and disclosing without reason to Dr. Gray under the dominion of his delusion that God and the American people were with him, and how and when the pressure to remove the President came upon him, and what his defense would be not as a remorseful confession, but as his providential vindication before the law, as when on the last day of his life, and all through his trial, and on the scaffold, despite opposition and disappointment of every kind such as must have made its impress upon a sane mind, not hardened by life-long indulgence in crime, he vehemently, vociferously and strenuously, in season and out of season re-affirms his inspiration and dies repeating it.

Guiteau's mental disease is shown in its symptomatology, just as epilepsy, tetanus, athetosic-spasm, myxœdema and many states of insanity, like the insanity of drugs and anæsthetics, regardless of *post mortem* examination, especially when death takes place before the disease has run its course and not in consequence of it.

"It will scarcely be contended, at the present day at least, that the *structural changes* found after death from any disease are the primary cause of the disturbance manifested by symptoms during life. "Cerebral irritation sufficient to produce insanity may endure for years, and death occur at last from other causes, without being able to discover any morbid appearances."—*Ray, Jurisprudence of Insanity, p.* 131.

This was said by a recognized Coryphæus in psychiatry in his palmiest days, and the psychiatric world repeats it. The student of psychiatry need not be reminded, in addition, that the underlying pathology of that vast *terra incognita* of *vaso-motor* disorder and ganglionic disturbance (reflected and intra-cranial), with their vast capacity for mischief yet unexplored, and the significance of cerebral anæmia, hyperæmia and local meningeal adhesions in the production of insanity and delirium, and the potency of the imperceptible virus of specific fever, must be denied, and the unsettled groupings of the layers and cells of the cerebral cortex and their multiform shapes and sizes squared to a normal standard yet to be fixed by future science, before the the so'e counter proof of suspected mental aberration may be found in such post-mortem evidences as pathologists shall agree to call morbid. Especially must the part played by reflected disease and the relation of morbid states of the sympathetic system be better known than now, though already conceded to be important to enable us to unsettle in the dead house the conclusions of psychiatry, clearly and cautiously made from the symptoms during the life of the patient. The dead insane often tell us no tales of their erratic lives even on the dissecting table, though, while they lived they may have made history.

SATURDAY, Oct. 28, 1882.

The Mental Status of Guiteau. By Chas. W. Stevens M. D.

"Was there ever," asked Dr. Wm. A. Hammond when recently addressing the New York Medico-Legal Society on the case of Guiteau, "Was there ever a man whose whole career from childhood to the present day, has afforded a more striking example of that form of mental derangement called reasoning mania?" and seeing that what Dr. Hammond calls reasoning mania is synonymous with what he might as correctly call arrant roguery, the answer which he anticipates and desires, may be given to his question.

That Guitean has been an arrant rogue, or, according to this new self-contradicting euphemism, a reasoning maniac, from his youth up until now, will scarcely be denied by any one who has glanced at the reports of his trial; and we fail, therefore to perceive the necessity for the elaborate proof which Dr. Hammond adduces in support of this self evident proposition. It may be well to examine Dr. Hammond's position, to inquire what justification he has for applying the term lunatic to the assassin of President Garfield. Putting aside general considerations, let us see what grounds Dr. Hammond has for applying the term lunatic in this particular instance, and for arguing that Guiteau, although worthy of death, is still the victim of a disorder of the mind and a diseased brain. What then are the evidences of Guiteau's insanity which Dr. Hammond, after much probing of his life, and ransacking of the records of his trial, is able to bring forward? They are as follows:

"That he had several insane relations; that while at college he abandoned his studies and entered the Oneida community; that he left it and subsequently returned; that he again left it, and went to New York to establish a newspaper devoted to the dissemination of peculiar religious ideas; that he abandoned this project; that he studied law, and was admitted to the bar; that he was married, and then divorced through his own procurement; and delivered lectures on the subject; that while thus engaged, he attempted to strike his sister with an axe; that though a physician cou'd find neither illusion nor hallucination nor delusion, he pronounced him insane, because of exaltation of the motives; and explosions of emotional feeling, also excessive egotism, and that he was the subject of pseudo-religious feeling; and advised his confinement in a lunatic asylum; that he soon afterwards gave up lecturing; that he associated himself, with the National Republican Committee, and prepared a speech, which however, he only delivered once; that, after the election of General Garfield, he asked, by letter, for the appointment of Minister to Austria; that he went to Washington to urge his claims; that, not

getting the position, he applied for that of Consul at Paris; that he earnestly and persistently followed up his application by verbal and written requests, having no special claims for this place except his own idea of the value of his services, and having the recommendation of but one person; that he unwarrantably inferred from a remark of the Secretary of State that he might be appointed; that in spite of rebuffs from officials in authority, he continued to expect the appointment; that he made inquiries about a pistol, which he subsequently purchased, borrowing the money to pay for it; that he practiced with it by firing at a mark; that he followed the president on two occasions for the purpose of killing him, but was deterred, once because his wife, who was sick, was with him; that finally he lay in wait for him at the railway station, and shot at him twice, intending to kill him, and inflicting a mortal wound; that after the shooting, he attempted to get to the jail for protection; that he was escorted, and that a letter to Genl. Sherman asking for troops to protect him was found upon his person; that in two letters, written several days before the shooting, he declares the President's nomination was an act of God; his removal an act of God; that in another document, addressed to the American people, and dated as early as June 16th, he used this language: 'I conceived the idea of removing the president four weeks ago; I conceived the idea myself, and kept it to myself.' And other words of like character; that he subsequently claimed that he was inspired by the Deity to kill the President, and that he had had previous inspirations; that for years before the shooting he had procured a precarious living, not paying his board bills, borrowing money, evading the payment of his railroad fares, retaining money collected by him as a lawyer, and being several times in prison on charges of fraud; and that, on the stand, he stated that he felt remorse for his deed so far as his personal feelings were concerned, but his duty to the Lord and the American people, was paramount." (The foregoing is from the *British Medical Journal* of June 24th, 1882.)

In regard to the mental status of Guiteau there are now, and ever will be conflicting opinions. That homicides have, time and again, been committed under circumstances in which there was much less evidence of insanity than in this case, and the perpetrators declared innocent, and allowed to go free, is doubtless the fact, and I do not hesitate to say, that if, in this case, instead of the chief magistrate, some one unknown to fame had been the victim, I believe the verdict would have been different. But in making this admission I wish it understood that I do not concede or admit that there was injustice in the verdict. Let any one competent to weigh well and thoroughly all the conditions and circumstances connected with the many cases on record, or that may have come under his observation in

criminal jurisprudence or court trials and he can see most glaring imperfections; he can see how the guilty escape and on the other hand, how the innocent often suffer the extreme penalty. It would be out of place at this time to attempt to portray all the circumstances which serve in multitudes of cases to defeat the ends and aims of justice. The case of Guiteau will ever stand conspicuous among the *causes celebres*. I was one in which every artifice that human ingenuity could devise was brought into requisition. The case is without precedent in the degree, almost unlimited, of speech and action which was allowed the prisoner. And although the sagacious judge for the time had to endure the severest criticism of an excited public, and a censorious press, his judgment is now applauded by all. The event proved that the man himself was his own swift condemning witness, that his own conduct during the trial did more, or fully as much as the recorded testimony to convince the court and jury that he was *not insane*—that the plea of insanity the only one in the power of the prisoner or his council to make, was a mere subterfuge; or to state it more charitably—a *dernier ressort*.

Much is said by those who assume to believe in the insanity of Guiteau about inspiration, and upon the fact that he believed himself inspired, they base nearly all their reasoning. They add to the theory, his conduct and language at the time of the homicide, during the trial, and on the gallows. They appear to regard the mere fact of his claiming that he was inspired, evidence of delusion, and consequently he was insane. I am strongly inclined to the belief that Guiteau killed the President without malice, and that he did it under the belief that he was performing a duty in which he would be sustained by the majority of the American people; that he did it under the belief that he was "God's man; that "God would take care of his own;" that he was sincere in the conviction that he was inspired.

This question of divine inspiration is one which, in its full length and breadth, is perhaps but vaguely understood. The word "inspire" means to inhale—to take air into the lungs; as used in relation to the intellect, it means, according to Webster, the "supernatural influence of the Spirit of God upon the human mind." Again, "The infusion of ideas or directions by the supposed deities of pagans." Again, "a highly exciting influence, as the inspiration of the scene." Now let us learn from his own words how he regarded the subject, for among the thousands who believe themselves inspired, there is a great difference in the intellectual or emotional processes and conditions by or through which the work is performed. One hears a voice, another has impressions, feels a spirit influencing his spirit, controlling his thoughts and actions, and intentions; directing him in the path of duty, etc. So, inspiration may mean anything

from a bare impression up to an absorption of the human into the divine essence. Dr. Gray of New York carefully examined the prisoner in the jail and recorded the questions and answers. Allow me to give here an extract from the memorandum of Dr. Gray:

"Upon what ground, in your mind, did you put the killing of the President?" His answer was, "I considered the removal of the President a political necessity". I asked him, "How can you show it a political necessity? He replied, "If you will read the papers in May and June, you will see the political situation." "But I don't see that it thus created such a necessity." His reply was, "If you will read the communications which I prepared for the public, and which the district attorney has kept, you will see how I explain it, and that I there claim that I am not responsible for the murder."

"What do you say in regard to the question of insanity? I don't claim to be insane, *as a medical man would judge*—what is ordinarily called insanity, but *legal insanity*." "How could you define the kind of insanity you assert as a defense?" "It is insanity in a legal sense—an irresponsibility, because it is an act without malice, and was a political necessity. I do not think it would be murder without there was malice, as I have shown in the *New York Herald* of Oct. 6th." "How did you come to think of insanity as a defense, and when did it occur to you?" "I knew from the time I conceived the act, if I could establish the fact before a jury that I believed the killing was an inspired act, I could not be held to responsibility before the law; the responsibility lies on the Deity and not on me, and that in law is insanity." He said, that he received no instructions, heard no voice of God, saw no vision in the night, or at any other time, had no impression on him, that it came into his own mind; that the thought flashed across his own mind first; that he had thought this over and read the papers, and gone through with this, and then when he had arrived at the final conclusion to do this act, that he believed then it was a right act, and was justified by the political situation, and he gave me no farther account until I asked him how then he could apply this as an instruction from the Deity. He then said, it was a pressure of the Deity; that this duty of doing it, as he claimed, had pressed him to it. I then asked him about his inspiration. In the meantime, by the way, he brought the *New York Herald* down and asked me to run over that a little, saying that I would see some of the explanations. I told him that I would run over it, but that I proposed to make my own examinations. I said, then, I see that you claim to have been inspired before. He said yes, that he believed himself to be inspired in going to the Oneida community; that he called it inspiration, his being there, and in connection with them; that he called it inspiration, his being there, and in connection with them; that he called it inspiration

when he left the community to establish the paper, and that he called this an inspiration. I asked him how he claimed inspiration in connection with his going to the Oneida community. He said it was, a pressure of Deity against his will; that he did not want to go to the Community, but his father who always believed in inspiration, always believed in the doctrine that a man might have perfection in this life, and believed in the community, had pressed it upon him and he had been so over persuaded that he had to go there; and that he had yielded to it against his own will and against his own wishes. I asked him if his views of inspiration differed, in any degree from those of the Oneida community. He said no—that he had acquired that doctrine and that faith through the teachings of his father, and through reading works of the Oneida community; their publications, especially those of Mr. Noyes, and the knowledge he had acquired while he was in the community." That we can talk or communicate in some way with the Deity is taught the great majority of us, from infancy to maturity and through our lives. Our fond mothers whispered it to us in infancy, upon the first dawn of reason. In the Sunday school it was the theme the good teacher loved to dwell upon. In the pulpit it is reiterated; we see and hear the man who is even called a Divine, addressing his language directly to the Great Creator. This doctrine then its belief first impressed upon the mind in its plastic state, remains as a controlling power, more or less potent through life, we may reason and philosopize upon it, or against it, and still its chrain remains. With some sects of Christians spiritual communication is the dominant idea, not only that the spirits of the departed communicate with living men, but that God himself does so. Thousands and tens of thousands of our best and most orderly citizens sincerely believe in what is called Spiritualism. There are many sects which have sprung into existence within the past fifty years, whose chief corner stone is this principle; and am I not in the right when I say, that all, or nearly all of the orthodox churches which grace our land, catholic and protestant, teach the same doctrine, perhaps, in modified forms; but they do teach the doctrine of inspiration and spiritual communion directly or indirectly or inferentially; and any system that does not entertain this principle is regarded as cold, soulless, and materialistic. Even in all the mythical and mystical systems of ancient times, the idea that the Deity, or Deities conversed with man, is the leading one; even the uncultivated savage recognizes the sentiment.

> "Lo! the poor Indian, whose untutored mind,
> Sees God in clouds or hears him in the wind."

I am not attempting, and I would not attempt if it were in my power to eradicate from the minds of mankind this sentiment, I would not dispel it from my own mind; be it true or false, I love it, and feel its influence, when troubles

through the pores of the soul. Now let this doctrine be exhibited or exaggerated to its utmost tendencies, let an individual entertain the conviction that all his thoughts, actions, words and intentions are controlled by the Deity, and we will find this influence presenting peculiarities or eccentricities which may attract public attention, he may act so strangely in all the ordinary affairs of life as even to be regarded insane; he may be an object of sympathy, or condemnation, yet as a rule, such a man is not, in accordance with any established principles, insane. That an insane man may have such ideas is doubtless true, but it takes other factors and conditions to reach their climax.

Guiteau as we see him at the time of the tragedy was the legitimate outgrowth of the soil which nourished him—a development by evolution of a character not by any means rare; the like characters are found everywhere; the individual becomes visible to the community at large when an event or explosion of some kind makes him conspicuous. As a rule he was conscientious, according to the rule or standard he had adopted or set up; or the standpoint from which he looked out upon the world around him. Guiteau was a religious extremist, at times a religious enthusiast. He had false views of God, false views of himself, false views of his relations to mankind, condemning or evading the laws and usages of society whenever they conflicted with his falsely conceived notions or his interests; he followed with remarkable energy the dictates of his perverted sentiments and stultified conscience, and in all this he felt no self condemnation. There are men in the pulpit, in the professions, on change, in the workshops who as ardently believe themselves under the controlling influence of the Deity as did Guiteau. They pray every morning to be more and more filled with the Holy Ghost; to be more and more under its guidance in all they do or say; they pray for inspiration; and when this sentiment is kept under subjection, and the individual living under its power keeps within the limits of reason and common sense and law and custom, he is, as a rule, a better man than he would be without this belief. But when such an one with faults of heredity, or with surroundings calculated to distort or exaggerate these sentiments, attempts to play any important part in the drama of life, his impulses are likely to drive him into extremes, and then he throws back upon Deity the responsibility for all he may do, for all the crimes he may commit, and for all his failures and misfortunes. Now let us, in a further examination of our subject, take a practical view of the case of Guiteau; let us bring him to some standard by which we can judge him. Then what is insanity? Full one half of the difficulty in all inquiries as to the insanity of individuals charged with crime grows out of the question as to what insanity really is, and then we might, from the manner of investigation often adopted, say it grows out of

what is not insanity. All our writers and experts agree, that no definition can be given that will cover all cases of mental aberration, or departure from any standard of mental health that can be set up. If we simply say, insanity is "a disease of the brain affecting the mind," we come as near to a definition as is possible; but this as a definition although strictly true and scientific, does not define, at least in such a manner as to serve the ends and aims of justice in cases of criminal or civil jurisprudence. My object then will be to give some of those definitions which writers and others have devised to meet the demands of mercy, justice and law.

Hoffbauer says, "An individual is insane when the understanding is diverted or changed in its operations; and he is powerless to avail himself of his intellectual faculties, or to make known his wishes in a suitable manner."

Dr. Bucknill defines insanity as "a condition of the mind in which a false action of conception or judgment, a defective power of the will, or an uncontrollable violence of the emotions and instincts, has, separately or conjointly been produced by disease."

Dr. Guislan, a Belgian authority, says, "Insanity is a morbid derangement of the mental faculties, unattended by fever, and chronic in its character, which deprives man of his power of thinking and acting freely as regards his happiness, preservation, and responsibility."

Drs. Bucknill and Tuke, quoting from Maimon say that "mental health consists in that state in which the will is free, and in which it can exercise its empire without any obstacle. Any condition different to this is a disease of the mind, and if asked, What is the will? it may be replied, according to the definition of Marc, that it is a moral faculty which originates, directs, prevents, or modifies the physical and moral acts which are submitted to it."

Dr. Gilman of New York says, "Insanity is a disease of the brain by which the freedom of the will is impaired."

Dr. Hammond says, "It is a manifestation of disease of the brain, characterized by a general or partial derangement of one or more faculties of the mind, and in which, while consciousness is not abolished, mental freedom is perverted, or destroyed."

Dr. Orpheus Everts, one of the experts examined on the trial, defined insanity as "a condition of the mind as the result of disease, in which the mind is incapable, by memory or reason of correcting the errors of sense or feeling."

Dr. McDonald, one of the experts, "Insanity is a disease of the brain which manifests itself in a departure in thought, feeling and action from the ordinary conduct of the individual in whom it occurs."

Dr. Gray, also one of the experts, said: "Insanity is a disease of the brain, in which there is an association of mental dis-

turbance—a change in the individual, a departure from himself, from his own ordinary standard of mental action, a change in his way of feeling, and thinking and acting."

Dr. Callender, one of the experts and now president of American Association of Superintendents of Asylums for the Insane, said, "Insanity is a disturbance or a derangement of the mental faculties as the result of disease; that bodily disease must and always does affect the brain and nervous system directly or indirectly, and the insanity is manifested by departure more or less prolonged from the customary modes of thought, feeling and action of the individual."

Now let the manifestations of Guiteau be estimated or measured by any one, or by all of these definitions, and we will, in my opinion, see the case in its true light, and will find it presenting a very different phase from the one represented by those who resort to mystifying metaphysical reasoning. In the investigation of this case we need not go off into shadow hunting at all. It is full time that the jurisprudence of insanity should be divested of the trammels and web-work of endless theorizing of abstruse hypotheses and abstractions, of psychological meteorology which bewilder more than enlighten the candid inquirer. Guiteau's peculiarities, his modes of thought, and his ideas were not the result of disease of his brain; "they grew with his growth and strengthened with his strength."

Up to the time when he committed the culminating act, the great crime of his life, he was in all his mental characteristics just like thousands of other men living in our midst. There was not at any time during his life any marked departure from his usual modes of thinking and acting; one year, two years, five or ten years before the tragedy he was the same kind of a being as he was when he killed the President. During the preceding thirty years in which we may suppose him to have been in active life, no theorizing upon disease of the brain was necessary to account for his peculiarities. It needed no disease of the brain to impel him to go to the Oneida community, or to believe in Divine pressure, or inspiration, or to become an editor or a lawyer, or to act dishonestly. As yet we know but very little, as to the direct relation, in cause and effect, still, we fully recognize the theory that in insanity there is actual disease. Ray, in his Jurisprudence of Insanity, page 139 says, "It will scarcely be contended at the present day at least, that the *structural changes* found after death from any disease are the primary cause of the disurbance manifested by symptoms during life, cerebral irritation sufficient to produce insanity may endure for years, and death occurs, at last from other causes without one being able to discover any morbid appliances." We affirm without fear of contradiction, that there was not found in the autopsy of Guiteau any brain disease that can be connected necessarily, or with any degree of certainty with insanity, the same morbid

appearances are found in the brains of persons who are known not to be insane. Some of them were in his case, doubtless the result of strangulation.

The ideas or sentiments influencing his conduct or intentions he firmly believed came by inspiration, by divine pressure. If his belief in inspiration is to be taken as evidence of insanity, then are all the perfectionists of the Oneida community insane, and the Quakers, the Spiritualists, and the Swedenborgians. The most that we can make from the inspiration or the divine pressure of this man, is, that in him it dominated to a remarkable extent his views of the relation in which he stood to the world around him; that is, granting that in all this he was sincere and honest in his convictions. As to the question of responsibility in a case of this nature, it is one we hardly dare to reason upon or decide. The position of an expert is often greatly misunderstood. He in reality has nothing to do with the matter of responsibility, his duty is to state what he, in his best judgment believes to be the truth, and it remains for courts and society to deal with it as best they may. Still, it may be well in this connection to look for a moment at this question. Maudsley in his "Physiology and Pathology of the Mind," page 252 says, "The question of responsibility must then plainly be a most deficient one; there are insane persons who are certainly responsible for their actions. A madman is notably capable of great self-control when his interest specially demands it; in the majority of cases he knows full well the difference between right and wrong; but, knowing the right, he is instigated by the impulses of his morbid nature to do the wrong; but is not held in check by those motives which suffice to restrain the sane portion of the community."

The *law* holds a man responsible, if at the time of the act he knew right from wrong. All who have made insanity a study agree, that this principle is defective. Guiteau fully comprehended this himself when he said, as before stated, "I don't claim to be insane *as a medical man would judge.* What is ordinarily called insanity, but *legal insanity.*" Now apply this test to Guiteau. He knew he was violating the law, so far then; he knew he was doing wrong, but behind this comes the question, Did he know he was doing a moral wrong—a sin? He did not regard the killing of Garfield as in itself a wrong, he contended to the very last, that so far as he was concerned he did right. "He was God's man." It is a question yet to be settled in criminal jurisprudence, whether there are not many conditions, outside of insanity, under which crime is committed and the individual implicated, is not responsible. What palliating or mitigating circumstances in such instances may be, it is not now my purpose to show. Suffice it to say, that this is a question which our Prison Congress, and our Social Science Association

have often discussed, but to this time they have not—legislation has not—solved the problem.

The question of hereditary transmission in the case before us, is one upon which great stress has been laid, and in this discussion, we will not ignore its importance. It by no means follows that because in the genealogy of this family several insane persons are found, that consequently this or that individual is unsound. The life history of the man is far more important. It is boldly proclaimed, but it is without substantial proof, that the father of Charles J. Guiteau was insane. On the trial it appears that the "father was a man of earnest religious belief, and who enjoyed a high character for honesty, uprightness, candor, and excellent business qualifications, and who was from time to time for many years elected to public positions of trust and responsibility, and who was at the time of his death, and for twelve years preceding, the cashier, and virtually, the business manager of a National Bank." We will not follow up each individual case of assumed insanity in this family; but the recent decision in regard to the sister, Mrs. Scoville. Does that have any weight? None at all; the trial may, or may not have been a fair, full and complete investigation; it was brought simply as a financial transaction, to determine who should control certain money, or real estate. From all we have been able to gather, the proceedings were precisely like dozens of cases we have witnessed in this city. The decisions of ordinary juries are very much, *chance affairs*. Experts on the two sides with conflicting and metaphysical sophistries, bewilder and confuse a jury made up perhaps of good and honest men; they decide by a vote; upon the same testimony another jury would decide the other way; you might about as well toss up a copper and let heads and tails settle the dispute. Much has been said about the conduct of the prisoner during his trial as indicative of insanity; we are bound to concede that he played the most fantastic tricks ever allowed in any court trial; but we fail to see the necessity of accounting for them in any other way, than that his performances were strictly in keeping with the character of the man. He laid his plan with deliberation and forethought, and carried it out with wonderful skill and perseverance; and in all this he proved that he was in the full possession of his intellectual faculties. In memory, perception, will and reflection, he was never at fault, or in the least trammeled or confused. He comprehended very clearly the bearing of every point in the testimony, and was in all respects, as far as intellectual processes were concerned, the peer of any, whether they were for or against him. In these long weeks of intense mental strain, there was not one item, in thought, word or deed which manifested either illusion, hallucination or delusion. The whole thing was, in our judgment, only the outward display of the inate diabolism of this monster.

Guiteau possessed an ill balanced mind, he was superstitious in the extreme; he was a fanatic of the most pronounced type; he was both an egoist and an egotist; he was "a moral monstrosity." Guiteau was *not insane.*

DISCUSSION.

DR. HUGHES.—The intimidation that surrounded the court in which Guiteau was tried—the menaces and threatening letters to his counsel, the judge and jury, the prejudice of the public press—the conservative organs of the republican party chagrined, mortified and vengeful because their leader had been stricken unto death and a sudden reversal had been made in the politics and offices of the country by the hand of Guiteau, clamored for his blood. Vengeance! was the cry. The blood of the assassin was demanded by the conservative press. On the other hand the stalwart press anxious to make it known throughout the land that it was not by their instigation or connivance that the life of the President was taken, cried also for his blood. And the press of the South, anxious to demonstrate its fidelity to the government to re-establish its loyalty to the country also joined in the cry. Under such circumstances, with the universal cry of the press and the people for the death of the assassin regardless of whether he was insane or not, the veriest lunatic in Bedlam could not have escaped. Although I had not made up my mind as to the psychical condition of Guiteau at the time I was subpœnaed I felt that if I should go to Washington and come to the conclusion that the man was insane it would not be extremely safe to say so. The sentiment reflected into my own household from the public press was such that my wife objected to my going to Washington to testify lest I might find the man to be insane. Such was the state of public sentiment that notwithstanding the semblance of a fair trial the defense had not a fair chance to present evidence of insanity, under those circumstances the strongest testimony was not in the legal evidence but in the unconscious testimony which the lunatic himself gave in court and in prison and on the scaffold to his mental aberration. It is astounding that medical men can see no insanity in this man who, in the most public place in Washington city takes the life of a man towards whom he bore no malice, without any motive which would actuate the rational mind; without provision for escape without attempt at evasion of any of the consequences of his crime. In the broad daylight at the imminent peril of his own life by the mob, yet feeling that he had power to command the presence of General Sherman with the army of the United States to his rescue and fulminating a proclamation to General Sherman to come and take charge of affairs as though his *ipsi dixit* were sufficient to command generals and armies to

protect him, because God and the American people were at his back and God had inspired the act and would take care of God's man and see that he was taken care of by the troops of the government over which he had no authority. This man commanding the armies of the United States to come at his bidding and on his triumphant way to the jail promising to the man who arrested him to make him the future chief of police of that great city. No delusion there! no evidence of mental aberration such as was inconsistent with his natural character! Did he ever command armies or dispense official patronage before? It is said that Guiteau's egotism was the foundation of his crime. You can explain away mental aberration by the adroit use of terms. Yes his egoism was inordinate! but when we find a man of this character displaying a character so unnatural and so inconsistent to what is common to sane men the world calls it—and science calls that form of egoism the egoism of mental aberration. It is not explainable upon any hypothesis of rational conduct. Such inordinate exaltation of the self feeling is lunacy; and it is so regarded by high authority in psychiatry. The authority of Grisinger and Van der Kolk, Tyler and Chipley and Ray and Blandford. All observers recognize maniacal egotism. Guiteau was the only jester in all that assemblage; he was the only man who took the trial lightly in all this wide land and yet we are told that he was not insane. He was the only man who was capable of acting in that manner in all this country on that trial out of the asylums. He had a jest when others had tears, he had a joke *mal apropos* always to the occasion however adapted it might be to the subject. No hardenep villain could have conducted himself as he did on such an occasion though he had made a life long business of crime, and had shot down human beings as though they were but rats or vermin. No desperado however hardened or bred could have withstood the universal adverse public sentiment as he did. No explanation but insanity explains the conduct of the man under the circumstances which surrounded him. If ever there was a man out of harmony with his surroundings, mal-adjusted to his environments that man was Guiteau. We can not look back upon the scenes in the court room, and in the prison, his speech and conduct and harmonize the psychical character displayed by Guiteau with that of mental sanity. The weightiest expert testimony in that trial against Guiteau's insanity invoked the theory of simulation as one which explained his incongruous conduct and speech, so discordant with all the circumstances about him, and yet when the man came to die on the scaffold the theory of simulation was dissipated and must be abandoned. Guiteau was not simulating insanity for the purpose of effecting his escape from justice. The expert who had the most influence with the jury and with the government counsel boldly declared it as his opinion that Guiteau was but playing the part of a

maniac. If an expert can make such a mistake as that in regard to the psychical manifestation of Guiteau how much weight is that expert's other conclusion as to the rest of his conduct to have?

The *London Lancet* seriously says that Guiteau knew what he was about; that he had violated the law; he understood what the penalty of the law was; he understood that he would have to suffer for his crime; he had killed the President and the penalty of the act was death. Isaac Ray in his day was regarded as a man who understood something about the phenomena of mental aberration; he made it the study of his life. His reputation grew out of the verity of his judgment and the extent of his observations. He maintained as every alienist concedes and knows, that a man may know what he is doing and believe it to be unlawful and yet insanely think that duty demands the violation of law. If Ray had been living to-day he would have pronounced Guiteau insane.

The paper which I read last evening undertook to determine the question of Guiteau's insanity upon the psychical evidences alone and only incidental reference was made to the post-mortem examination.

Guiteau seemed to have been under the dominion of delusional exaltation and very unnatural insane egoismall through the trial and often during the last twenty years. Unlike Micawber he was not always *expecting* something to turn up to his advantage. He went through the varying scenes of his checkered caree and adverse fortunes feeling that he *was* all right and couldr not be otherwise. Whether he was engaged in writing truth so refined that he regarded it as a fit companion for the Bible, confessing adultery to free himself from a wife towards whom he had formed a morbid antipathy or maintaining his defense as a *sane lunatic* with a head as good as Mr. Porter's and entitled to go free on the ground of insanity.

But if the symptomatology of insanity is only to be discovered after the patient is dead, those who maintain that Guiteau was insane have sufficient evidence of his mental aberration since his death, not only in the post-mortem examination but in the further evidence of his insane heredity, afforded in the late judgment of a Chicago jury that Mrs. Scoville is insane. Dr. McFarland who knew the elder Guiteau, the father of Mrs. Scoville, declared that he was insane years ago when he came to him with the sister of Mrs. Scoville, who was insane.

The post-mortem examination of Guiteau revealed adhesions of the arachnoid and effusion, and the microscopic examination gave the satisfactory evidences of cerebral disease, which were either the cause or the consequence of the abnormal excitement of Guiteau's brain and mind.

DR. STEVENS.—Can you connect all these morbid appearances with insanity?

DR. HUGHES.—No; not necessarily all of them. Where there exists in the mind of an individual before death such evidences of morbid mental action and the post-mortem examination reveals as much lesion as was found in that brain I should conclude, did I belong to the exclusively somatic school of psycho-pathologists, as the best and only reasonable explanation that the abnormal mental display was associated with the cerebral disease, and if I were so intensely somatic in my views of the etiology of insanity as not to be willing to concede that that was evidence of mental disease, I would dove tail the facts set forth in that post-mortem examination with the ancestral history, revealed to us in the family record, and I would then be convinced that the man who portrayed *such* a character, and perpetrated *such* a crime under *such* circumstances and surroundings, was out of harmony with his surroundings, maladjusted to his environments in consequence of an insane condition of mind and disease of brain.

DR. A. GREEN.—If Guiteau had killed Mr. Garfield without any motive whatever, this, in connection with the family history, and what post mortem examination revealed, all this taken together might have convinced us, perhaps, that Guiteau was insane. But did Guiteau act without a motive? Is it likely that if the President had given him his office that he would have killed him? I say no. Guiteau asked the President for the office, and when he didn't get it, in revenge he killed the President. Didn't he intend to kill the President once before, and when he saw him walking with his wife he went away? Guiteau was a lawyer himself and he thought that he could get off unpunished and afterwards he would be the hero of the day. Dr. Hughes tells us that his behavior before the court showed that he was insane. We cannot go by this for we read that [illegible] was not insane. When David at David once came into the hands of the Philistines who were to capture him and he acted insane and [illegible] thought this cannot be David. Thus Guiteau acted a part of an insane man in order to save his life.

DR. HUGHES.—Did David say he was not insane while simulating madness?

DR. A. GREEN.—At that time there was a jury. David was not tried, or would have [illegible]. The [illegible] own his motives, but we [illegible] of David, and he got off well [illegible]. And, if the post mortem examination [illegible] that would have proved

something, though it could not have proved much more than a chronic congestion of the brain. But even if Guiteau was afterwards insane the question is: was he insane at the time he committed that act? Months and months of mental excitement afterwards was enough to have produced this appearance of the brain. He may have been predisposed to insanity and the the excitement for months and months may have actually brought about the anatomical lesions which were found in his brain. But we have no proof whatever that at the time he committed the act he was insane. They cannot tell from the post-mortem examination that he was insane at the time he committed that act.

DR. DEAN.—I have only one suggestion to make and that is with reference to the post mortem. It has struck me several times since this examination has been going on that they were examining the brain of a man who had been under great stress for weeks and weeks. We all know that very often cases occur where a mother will lose a child and become distracted, I have known of such cases where the mother recovered her full faculties, where there had been loss of memory, loss of strength, and I have no doubt that in many of these cases abnormalities could be found in the brain as great as what have been found in the case of Guiteau.

DR. JOHNSTON.—The question in relation to the assassination of President Garfield is: Was the man Guiteau sane when he committed the act? Under peculiar circumstances and surroundings, men do peculiar things, and it is very hard to determine what was the power that impelled a man to commit an act. Great convulsions in nature affect men, revolutions and storms. The history of Guiteau from his boyhood shows that his organism was not in the proper relation, that cell action was not in its true relation; that abnormal relations existed and all that it required [illegible] the act. His brain was so organized that disappointment distracted him. We know that men will commit abnormal acts when the microscope will detect no [illegible] in the brain. It is strange to me that Guiteau did not kill Blaine at the same time.

SATURDAY, NOV. 4th, 1882.

The Guiteau Trial.

DR. HUGHES.—If I were right sure that it would be interesting to the society I should like to take up the observations of the judge in the Guiteau trial and discuss the [illegible]

trated in that trial from the standpoint of clinical medicine. It has occurred to me that the adjudication of law towards the profession in its rulings upon medical subjects, especially upon this subject of disorders of the mind—has been so often erroneous that it is the duty of our profession to interpose in the present as it has done in the past, successfully at times, the facts which science has given us. This is pursuing the subject under discussion at the previous meeting, and I know that very few of the members have paid much attention to the full ext of the judicial decisions in the Guiteau trial, or have noticed how varied have been the received opinions at different times in the profession in its rulings upon medical subjects, especially upon this subject of mental disease and the responsibility connected therewith.

It was a member of our own profession, who a good many years ago arraigned the judiciary for its inconsistencies in its rulings upon questions of criminal responsibility where the plea of insanity has been interposed in defence of crime. The legal profession has made a good deal at times of what they have chosen to characterize as the inconsistency and uncertainty of medidine, forgetful of the fact that law, if we trace its history from the past to the present has but little more claims to be called consistent than the profession of medicine. Dr. Ray in his medical jurisprudence of insanity arraigned the British judges for having delivered an opinion in one trial which they overturned in a subsequent one on the subject of the tests of mental aberration, and yet the judiciary is prone to talk of precedents. It is interesting to look into the conclusions of Judge Cox while Guiteau was before him. He tells the jury to "bear in mind that a man did not become irresponsible by the mere fact of his being partially insane. Such a man did not take leave of his passions by becoming insane. He might retain as much control over them as in health. He might commit offences, too, with which his infirmity had nothing to do. He might be sane as to the crime he committed, might understand its nature, and might be governed by the same motives in relarelation to it as other people, while on other subjects having no relation whatever to the crime he might be the victim of delusion. Whenever this partial insanity was relied on as a defense, it must appear that the crime charged was a product of the delusion, or other morbid condition and connected with it as effect with cause, and that it was not the result of sane reasoning which the party might be capable of, notwithstanding his limited and circumscribed disorder. Assuming that that infirmity of mind had a direct influence on crime, the difficulty was to fix the character of the disorder which fixed responsibility or irresponsibility in law." And yet the leading expert testimony in this trial upon which Guiteau was convicted was that the mind acted as a whole in insanity. It could not be conceived, was that testimony, that the mind could be insane on one subject without

the whole mind being sympathetically implicated. Judge Cox goes on to say "That subtle essence called the mind defied, of course, ocular inspection. It could only be known by its manifestations. The test was as to whether the conduct of the man and his thoughts and emotions conformed with those of persons of sound mind, or whether they contrasted harshly with it. By that a judgment was formed as to a man's soundness of mind, and for that reason evidence was admissible to show conduct and language that would indicate to the general mind some morbid condition of the intellectual powers." "The instructions which he had already given to the jury imported that the true test of criminal responsibility, where the defense of insanity was interposed, was whether the accused had sufficient use of his reason to understand the nature of the act with which he was charged and to understand that it was wrong for him to commit it. If those were the facts, he was criminally responsible for the act whatever peculiarities might be shown of him in other respects." Now Hatfield, to whose case Ray refers had a clear understanding of the nature of the act and of the punishment which belonged to that act, and yet Hatfield was acquitted for having attempted the life of the king; a crime which in Great Britian is much greater than the attempt on the life of our chief magistrate in this country. It is greater and more heinous because of the fact that it is treason against the crown. Here the murderer of a President is the murderer of a citizen and the murderer stands upon the same footing as the man who slaughters his footman or his servant. Judge Cox goes on to say: "A jury was not warranted in inferring that a man was not sane from the mere fact of his committing a crime or from the enormity of the crime, because the law presumes that there is a bad motive and that the crime was prompted by malice if nothing else appears. Perhaps the easiest way for the jury to examine into the subject was, first to satisfy themselves about the condition of the prisoner'r mind for a reasonable period of time before any conception of the assassination had entered it, and also at the present time and then consider what evidence exists as to a different condition of mind at the time of the commission of the act." * * * * "Was the prisoner's ordinary, permanent, chronic condition of mind such that he was unable to understand the nature of his actions and to distinguish between right and wrong in his conduct?" The jury under this instruction was to ascertain the state of the prisoner's mind not at the time of the commission of the act, but they must be satisfied in this particular instance, that it was the ordinary condition of his mind, and it must be a chronic condition of his mind." Here it is plain enough that there was outside pressure bearing upon the mind of the judiciary, as well as on the others connected with the trial, because such an instruction was never heard before in any court; that the condition of

the mind should be chronic in order to produce an acquittal or to justify an acquittal under the plea of insanity. Insanity exists in an acute as well as in a chronic form, and if the Judge in this case had been a physician he would have known that insanity was often an acute disease and as violent, dangerous and detrimental to the public welfare and as dangerous to human life in its acute forms as in its chronic stages." "On the other hand," he says again, "had he the ordinary intelligence of sound people so that he could distinguish between right and wrong as to his actions? If another person had committed the assassination, would the prisoner have appreciated the wickedness of it?" Now, no person who is at all familiar clinically with the features of insanity, needs to be told that it is a disorder of the mind with reference to the individual himself and his acts, prompted by his disease that constitutes the essence of insanity. An insane man—a lunatic in any of our asylums, is ready to concede the fact that actions are wrong in another, the impropriety of which he cannot discover in himself. I will conclude this criticism with this quotation from Ray: "Had the principles here laid down been always strictly followed, it is very certain that many a one who has been acquitted on the ground of insanity, would have met the fate of an ordinary criminal. Hatfield knew, so far as a man may be said to know anything, that in shooting the King, he was doing an illegal act, because when apprehended, he declared that his life was forfeited, that he did the deed for this purpose, in order that by his death he might fulfill some great end to which he fancied himself called." Martin expected to be punished for his crimes. Then Mr. Ray produces these words: "The mental disability of the insane may be evidenced, not in failing to recognize the illegality of their acts, but in considering themselves as absolved from the obligation of the law. An act which they know to be forbidden, they may feel constrained to commit for reasons that transcend the law; they move in a sphere beyond the ordinary motive of [illegible] and law to themselves. It is now reasonable to expect any one to believe that to revenge a private grievance or to secure a public benefit, he may set aside the law and take any [illegible] measure that may seem for the purpose. Shall we be likely to expect an insane person to act reasonably in relation to his delusion." Medical men know too well the morbid impressions of disease. They know too well what the expressions of morbid emotion they recognize as insanity, are. They know that there is something else besides mere absence of the knowledge of right and wrong constituting the essence of insanity. Medical men who are accustomed to acknowledge the phenomena of epilepsy and post epileptic processes, and the action of the nervous centers in the epileptic circle, know too well that there is something more in connection with that mind than mere absence of the knowledge of right and wrong; and they know

further in connection with epilepsy and the epileptoid seizure and the epileptiform condition that the patient may possess an appreciation of right and wrong in such a manner that the observer, looking in upon that mind, cannot see any flaw in the existence of the knowledge of right and wrong and yet they know that the individual is impelled by impulsions which have for their basis—for their *ris a tergo*—a morbid condition of the brain. Every medical man who knows anything of the morbid impulsions of disease, knows something of the loss of will-power in individuals, in consequence of mental aberration; and he knows too that insanity and conditions akin to it, reveal themselves often in states in which the knowledge of right and wrong is present, while the power to resist impulsions to do wrong is absent by reason of the existence of disease; and it is only reasonable, it is only just, it is only the duty of the medical man to protest upon every proper occasion, when the courts attempt to invade the arena of disease, to protest against judicial rulings which are at variance with the phenomena of disease as observed in its clinical features. These views are not popular to-day, but I do not hesitate to place them on record.

DR. BLOUNT.—I am inclined to favor the rulings which hold insane people responsible for their acts where they are sufficiently sane to know the difference between right and wrong. In my opinion there is no one of us who at any time can say, now I am going to do that which is exactly right. We act, we do what we consider best under the circumstances at the time; what the result of the action will be, none of us can tell. The insane person knows as much, perhaps, in that respect as we do. The duty to society is very much, in my opinion, the duty which the individual exercises in times of danger—that of self preservation. And I favor the principle which Dr. Hughes referred to in last Saturday night's discussion. Perhaps the cases of insanity which tend to the destruction of life other than that of the insane person, are very frequently—I can't speak positively—but my opinion is that in the majority of cases they are of an emotional nature, and our knowledge of the disease is so limited that our treatment is never such that we can dismiss the patient with the complete assurance that he is cured; that there will not be a recurrence of the disease under similar conditions. Now it is a question to my mind whether it is advisable, as long as we have capital punishment for crime, to exculpate a man from punishment, whom we cannot cure, if the exculpation does not at the same time, place him in an asylum—doesn't place him under the control of a keeper.

DR. FAIRBROTHER.—Dr. Hughes says we should recognize the full power of morbid feeling, of morbid tendency to carry an individual forward in an act or a course of action that is criminal in the face of the fact that the individual

recognizes in it the moral quality of wrong. Certainly we ought. It is no trouble to recognize that fact, but when that becomes permanent and when the crime becomes great, are we to attribute insanity to it? I cannot blame the judiciary for varying in their decisions on such a subject. We cannot help but vary, there are so many shades of insanity. Every one of us differs in our degree of soundness to-night. I am myself of the opinion, which is of little value, however, I have thought all along that Guiteau was insane and especially at the last when he got off that whangdoodle Oh! Lordy song. A man with any mind, a man with any brains, that had the power to act, would at the last have said something sensible. It always occurred to me so.

DR. STEVENS.—I don't wish to say much on the subject. I have expressed my views in my paper, not exactly upon this point, however. If there is anything of interest during this trial in Wasington, it is the discrepancy between the lawyers and the doctors, or the teaching of the professions on the subject of responsibility. The law holds out the idea that if a man is able to distinguish between right and wrong, he is responsible. The medical profession holds that the insane man, while he may be able to distinguish between right and wrong, is unable to resist the impulse to do wrong. That was well understood by Judge Cox when he used the term chronic; and it shows that he was impressed with the necessity of using some term in that case. I think that Dr. Hughes misunderstands the intention of Judge Cox in the use of the term chronic. He meant that if this idea was a fixed one in the mind of Guiteau, that it was consequently a delusion. That was his idea I think. That is all that should be understood from his use of the term.

ARTICLE VII.

MISSOURI STATE MEDICAL ASSOCIATION.

TWENTY-FIFTH ANNUAL MEETING, HELD AT BRITTINGHAM HALL, HANNIBAL MO., MAY 16-17-18, 1882.

A CASE OF HYDROPHOBIA. By DR. J. L. MATTHEWS, Carthage.

Having recently had a case such as one rarely sees, I deemed it of sufficient importance to report it. A girl five years old was bitten by a dog, March 18th, 1882. The father of the child killed the dog, but had no apprehensions. The child's wounds were dressed by him and he brought her to me the next day. The wound was in the left lower lip, three-fourths of an inch long; also a slight abrasion on the right side of nose. Adhesive plaster was put on; it was cleansed and absorbent cotton applied, and the wound soon healed.

On April 19, the father said that she had caught cold; at 8 P. M., I called and examined her. She complained of feeling unwell and feverish and also of her throat. Made efforts at vomiting. I found on examination, fever, rapid pulse and anxious countenance. Parents thought she had caught cold the day before. When the fever began she had cold extremities. The throat, pharynx and fauces were reddened. Gave mercury, potassium bromide and tincture of aconite. The next morning there were frequent attacks of vomiting upon trying to take the medicine. The pulse was slower, eyes bright, pulse irregular and intermtttent and a state of extreme nervousness. She could not lie down; doing so upon a lounge she went into clonic convulsions; upon sitting up she became quiet. The heart was irregular, but the lungs were normal. I gave a dose of digitalis and this at once cleared up the mystery. The child threw back its head, there was a spasm of the pharyngeal muscles and she ejected the medicine. Witnessing this spasm I at once took in the situation.

I called for Dr. Brooks and the child seemed to be afraid of him, although she knew him well. When he wished to examine her she went into a spasm. On trial she could not swallow any fluid; she never asked for water and during the whole course of the disease never indicated any desire for drink.

She took morphia, potassium bromide and chloral. Saw her again at 12: 15 P. M.; she had the spasms less often. Saw her

again at 2:30 P. M.; she had grown worse. She would slide off her father's lap when not in a spasm and would continually pick at her clitoris. The eyes were dull and bloodshot, the face livid during a convulsion. The scar looked like a livid streak.

Not two hours before death she insisted that the scar was going to bleed and asked her mother to dress it. At this time there was mucus in the air-passages and throat and venous blood mixed with it. The pulse was rapid and weak, perspiration was profuse. I gave chloroform and kept her on a lounge until she died. I had another physician called who advised giving xanthium spinosum; she swallowed a portion of it. She became more quiet, had but slight convulsions at short intervals; her head drooped to one side and she died.

Asphyxia is generally ascribed as a cause of death; but I think that here, paralysis of the heart was the cause. Although she had delirium one hour before death, her mind was clear in the main.

The time of incubation was one month and the duration of the attack, forty-four hours.

The age of the child and the circumstances are proofs of the falsity of the opinion that anxiety and fear of the disease bring on hydrophobia. As to the origin of rabies in animals, it is produced by inoculation. In this case it could not be traced to such a source. Nothing peculiar in the dog was noticed up to the time of the biting of the child. It had snapped at children for a couple of days previously. The dog played with the child as usual and not until struck did it retaliate by biting.

If the father had at once sucked the wound and thoroughly cauterized it, it is probable that the life of the child would have been saved.

DISCUSSION.

DR. KING, Sedalia.—Of course, we all know that there are a great many things about hydrophobia that we do not understand. Was the dog male or female?

DR. MATTHEWS, Carthage.—I do not know.

DR. KING.—Dr. Hammond says that when a bitch is in heat she may transmit hydrophobia. I would add that not only a bitch in heat but one that is restrained and unsatisfied may be the starting point. A case in point: About five or six years ago, my partner, Dr. Jones, treated a patient with peculiar symptoms. It was a boy five years old who had been sick several days. He could not get the child to take medicine. If the air was allowed to blow on the child it went through a spasm; the same thing occurred if its pulse was felt; the suggestion of medicine did the same thing.

We bled him and during this operation, he had serious spasms

and we got only two or three ounces of blood. Whilst riding home it occurred to me the case was one of hydrophobia. On my return the child was dead. I learned that, fifteen months previous, the child was bitten through the hand by a bitch in heat, restrained for a dog fight. For a month previous to the attack the site of the old wound was irritable and the child would scream at night.

DR. BUXTON, Kansas City.—What was done with the dog?

DR. KING.—It was not killed and it did not die of hydrophobia or anything else.

DR. BUXTON.—Prof. Traube has stated that if there was no such thing as hydrophobia, no one would die of it, thereby implying that it is a disease of the imagination. The case read would seem to be a satisfactory argument against that theory. In the early spring of 1877 a butcher's dog went mad in Whitechapel, London, and bit seventeen persons. Eight went mad and four died at the London Hospital. Two months after, a gentleman went there complaining of sore throat. The interne on duty saw no difficulty but learned that the man had been bitten by a dog, there being a small scar on the hand. No importance was apparently paid to this and a speedy cure promised. There was no spasm only slight difficulty in swallowing. The throat was examined and all the attention directed to it. As the interne was going out he noticed the man's hand and remarked that he must have cut his hand with a chisel. He grew worse and died. A slight draught of air brought on a spasm. It is singular that all who were bitten did not die. It may be that the clothing wiped off the virus or there may be some element necessary to develope it.

DR. W. H. FORD, St. Louis.—I never saw a case and merely rise to say that Trousseau and other authorities state that male wolves and dogs when in heat have been supposed to produce hydrophobia. It is also settled now, I think, that hydrophobia may result from animals that do not die of it themselves.

DR. J. P. KINGSLEY, St. Louis.—All who have hydrophobia are generally bitten on the hands and face. It is seldom that those bitten through the clothing, die.

DR. H. H. MIDDLECAMP, Warrenton.—I have had a case similar to that of Dr. Matthews. The time of incubation was four and a half days and death in forty-eight hours. The bite was from a male dog who was vicious and ferocious. He had bitten other children but they did not have hydrophobia. The wounds in this case were not so extensive and deep that I could not cauterize them thoroughly; the child foamed at the mouth. Gave chloral, bromide, etc. and it died of asthenia.

DR. W. S. D. JOHNSTON, La Belle.—I would like to report a case under my observation which will not corroborate Hammond's theory. In 1857 a large male mastiff, who wore a chain around his neck for years and who had not been outside of the dooryard for a twelvemonth, got hydrophobia. He got loose at night and had a fight with another dog. He killed the dog and bit a hog. The hog was penned to await results. The dog would not come when pulled by the chain. His master reached out his hand to pet him and was bitten. I excised the part, cauterized it and kept up the discharge for two weeks. That dog bit three hogs and one heifer; all the hogs were penned and all got hydrophobia in twelve days and in four more died. The man is living yet. The true treatment is prophylactic.

DR. T. F. PREWITT, St. Louis.—I have seen three or four cases and they all died; and, so far as I know, there is no authentic case on record of a recovery after the symptoms have developed. It has been said that dogs may communicate hydrophobia and not die of it themselves. The question in my mind is whether the irritable condition of animals, at times, produces or is produced by some specific poison.

When an animal is in a state of sexual excitement hydrophobia may be formed. Because fatal in man it is not necessarily so in animals. Certainly there is something developed in the saliva of the dog, not existing at other times. It arises *de novo* in an animal.

I believe that tetanus, so analogous to hydrophobia, is also the result of an autogenetic poison. There is no reason why we may not have the development of such a poison in a wound causing tetanus. Hydrophobia is a disease without doubt; persons had it who never suspected it.

Fifteen years ago I had a case in a man who had a dread of hydrophobia. He had all the symptoms and never asked a word about it although he suspected it. After three months' incubation it developed and he died on the third day. As to the probabilities of contracting the disease, Mr. Youatt says that only one in fifteen, who are bitten, have hydrophobia, and attributes this to the fact that we only see cases that have been bitten in exposed parts.

DR J. C. RIDINGS, Cairo.—I never saw a case. There were two cases in our town, of dogs having hydrophobia twice. People said the bitch was having fits; but she drank water and took food. She got undoubted hydrophobia again.

DR. KING.—Was she permitted to be with a dog?

DR. RIDINGS.—No, sir.

Article VIII.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

Thursday Evening, Oct. 9th, 1882.

The President, Dr. Jas. Tyson, in the chair.

Myxomatous Tumor of the Posterior Cervical Region. Presented by Dr. Nancrede for Dr. W. G. MacConnell.

The tumor was removed by Dr. J. H. Brinton, at the Jefferson College Hospital Clinic some ten days since. The patient was a little boy aged four years, whose parents had first noticed the growth about two years ago. Latterly it has grown with considerable rapidity. It was of firm consistence, lobulated and movable beneath the skin, giving the impression that it was a fibrous tumor. After removal, in addition to the above mentioned characteristics, it was found surrounded by a capsule and on section looked somewhat suggestive of myxoma; still it was thought by some to be merely a fatty tumor containing more fibrous tissue than usual.

Microscopic Examination by Dr. McConnell.—Upon examining a frozen section stained with iodine, meshes of capillaries are displayed in the walls of which the endothelial cells composing the vessels, can be distinctly seen. The aforesaid meshes contain the mucous structure traversed by large pale fusiform cells, the processes of which anastomose with each other. In addition leucocytes are seen and interspersing the growth in every direction, numerous yellow elastic fibres are readily distinguished.

When presenting the specimen Dr. Nancrede commented on the variety of such growths. Dr. S. W. Gross said he had himself presented several gelatinous polypi of the nose, a number of years ago, which were most characteristic examples of myxomatous tissue. He could also recall a specimen of subcutaneous myxoma of the forearm, as well as dermatoid myxoma of the breast, referred to by Dr. Nancrede. He was disposed to consider it the rarest of all neoplasms of the breast; indeed he had never personally met with one and when preparing his work on tumors of the breast, he had written to numerous surgeons throughout the country, who all replied that they had never met with one affecting the breast. Dr. Formad remarked that he had exhibited a myxomatous fibroma of the labium some years since and said that the peculiar milky appearance assumed

by the fluid when thrown into alcohol, was a good diagnostic point.

Dr. Shakespeare said that his personal experience as to the rarity, coincided with that of Dr. Gross. This specimen is one of the rarest forms, as most of the fibrillæ consist of yellow elastic tissue. The rarity of myxomatous tumors seems to him to have much bearing on the views of Cohnheim and others, as to the etiology of tumors. The observers insist that all tumors spring from fœtal tissues not made use of in tissue construction, which remain dormant in their embryonal condition until subjected to some irritation when they develop into various neoplasms. Now tissue practically identical with that found in myxomata, pervades in the fœtus. How else is it that portions of this do not remain to give rise to myxomata? On the contrary myxomata are among the rarest of the neoplasms.

Specimens from a Man who Died with Brain, Lung, Heart, Liver, Spleen, Kidney and Bladder Lesions. Presented by Dr. J. F. Eskridge.

The specimens showing the above lesions were removed from the body of a man aged sixty-eight years. The patient had become deaf in the right ear thirty years before while suffering from some brain disturbance. Attacks of jaundice with gradually increased permanent discoloration of the skin, had extended over a period of ten years. Since the early part of this year, 1877, he had complained of incontinence of urine, an oppressed feeling over the hepatic region, dropsy in the feet and face and a gradual loss of flesh and strength. The two years preceding his death he had been unable to work, but was only confined to bed five days. During the latter period his symptoms were in the order in which they were developed, great prostration, scanty secretion of urine, blindness for twenty-four hours preceding repeated convulsions, loss of speech and almost total inability to swallow, although consciousness was preserved until coma ushered in the death scene. His temperature (axillary) did not rise above 100°.5. The surface head temperature nearly equalled that of the axilla. No paralysis of the muscles of the face or extremities preceded death. The liver during life did not appear to be enlarged or altered in its outline.

The *post mortem examination* revealed, in the brain, engorgement of the veins with some effusion, slight pia-mater inflammation in the neighborhood of the fissure of Rolando, apparent degenerative changes in the left Island of Reil and anterior portion of the left temporo-sphenoidal lobe; in the pleura and lungs, old and numerous pleuritic adhesions, lobular and vesicular empyema of the lungs, congestion of both lower lobes and a nodule (probably cancerous) of the left apex; in the heart, fatty degeneration, dilated right ventricle, and incompetent mitral valves from ossific change; in the liver, multiple cancer without

an increase in size or a nodular condition of the organ; in the spleen, marked increase of fibrous tissue and atrophy of the glands to one-half or less of its normal size; in the kidneys and ureters, the last stages of pyo-nephrosis, the glandular tissue being nearly all destroyed, the pelves were as large as a good sized orange and the ureters dilated so as to admit a man's thumb; in the bladder, great hypertrophy of the mucus membrane and decrease of the capacity of the viscus.

Primary Carcinoma of Pancreas and Liver. Presented by Dr. E. Bruen.

The interesting features pertaining to this case are the age of patient—24 years—and the rapidity of the abnormal processes. These rendered the diagnosis of malignant disease doubtful until the appearance of nodular tumors in the liver. The family history was free from hereditary diseases. The commencement of the disease dated from September, 1881, death occurred on the 15th of January, 1882. At first the symptoms related solely to the digestive tract, such as dull, heavy sensation after eating, with acid eructations, and occasional vomiting. Subsequent sharp cramp-like pains in the abdomen were prominent symptoms. After the lapse of a week there commenced general itching and two weeks later the skin became yellow. This yellowness and itching never disappeared during the history of the case. At the autopsy the gall duct was obstructed by the enlarged head of the pancreas, so that extreme dilation of the gall-bladder had ensued. This was probably the cause of the jaundice and not the liver disease itself. The bowels were regular and the appetite good when first seen. The case then presented evidences of partial obstruction of the gall-duct with digestive disorder, but without the symptoms characteristic of malignant diseases of the stomach or bowels. By the middle of December, 1881, the liver dullness then extended from the fourth interspace to three inches below the ribs in the nipple line; from the ensiform cartilage the line of dullness extended to within one inch of the umbilicus. The hepatic region was tender on pressure, especially over the epigastrium. The patient complained about this time, of dull pain over the liver and griping pain in the abdomen. The pulse was 76 per minute. He had lost five pounds since admission and looked thin. About this time a small inequality was noticed on the surface of the liver, three inches above and a little to the inner side of the umbilicus. The spleen was enlarged. By January the 7th the bosselation of the liver became distinct and the enlarged gall-bladder rendered irregular by gall stones, presented a slowly increasing, elastic tender tumor, situated to the right of the epigastrium and umbilicus. By January the 12th the pulse became rapid—130—per minute—the patient rapidly failed and death occured January the 15th.

AUTOPSY.—The pancreas was enlarged to double its size, the growth chiefly occupying the head and compressing the common bile duct. Microscopic examination showed it to be sclerous carcinoma. The liver was thickly studded with nodules of medullary carcinoma, explaining the ante-mortem bosselated feel of the organ. The gall-bladder was distended to twice its normal size and contained a number of gall-stones.

REMARKS.—The duodenal end of the organ—as is usual—was the seat of the disease. In a paper on thirty-nine cases of primary carcinoma of the pancreas, in St. Bartholomew's Hospital Report for 1881, jaundice is stated to be always present, while in twenty-four cases of secondary carcinoma this symptom was noted in but seven cases. This is presumably from the secondary growth occurring in some other portion of the organ than its head. Murchison says that the characteristic symptoms of carcinoma of the pancreas are, pain in the pancreatic region, sensible tumor and persistent jaundice. To these Dr. Bruen would add, intestinal dyspepsia, which differs in some essential features from the dyspepsia of organic disease of the stomach.

Dr. Musser remarked that he could vouch for there being a distinct tumor of the pancreas, as he was present at the autopsy. The case had been under his observation in the dispensary, one month prior to his admission to the hospital. On account of the age he was puzzled as to an exact diagnosis, although confident that the cause of the jaundice was obstruction. He noted, among other symptoms, the intense itching of the skin, a point of importance, Sims says, in the diagnosis of obstructive jaundice from that due to suppression. In five cases of tumor of the pancreas, he had lately seen, all were accompanied by jaundice.

Dr. Bruen called attention to the uncertainty of bosselation as a symptom of malignant disease of the liver. He had presented to this society only two weeks since, a liver exemplifying this condition in a marked degree, where nothing beyond cirrhosis in the stage of enlargement existed. The occurrence of carcinoma of this size, at so early an age, is unusual, although Dr. Pepper had shown a specimen of the disease to this society, some years ago, occurring in an infant. Dr. Tyson said that there were two points in this case, of great interest to him: Firstly, jaundice in carcinoma of the pancreas, while it is a frequent symptom, it is by no means an invariable symptom. Seven years ago he presented to this society the specimens from a pancreatic carcinoma where no jaundice had been present, and six months ago he presented to the society a specimen of enlargement of the head of the pancreas from a patient who also presented no symptoms of jaundice. Secondly, as to the diagnosis from cancer of the stomach, he had noted in his experience as was mentioned in the history of Dr. Bruen's case, the absence of gastric symptoms. This negative symptom is of importance since the tumor is often detected in precisely the same spot in.

both diseases. The absence of gastric symptoms with intestinal digestion, irrespective of fatty diarrhœa he considered the most reliable diagnostic points between carcinoma of the pancreas and stomach.

Spindle-Celled Sarcoma of the Small Intestine. Presented by Dr. W. A. Edwards.

On September the 23d, 1882 I was asked to assist Dr. W. F. Alter, in the removal of an abdominal tumor. The patient æt. forty-eight years, whose menstruation had ceased at thirty-one years, first noticed the swelling in April last; on the day of operation she measured thirty-eight inches around the abdomen. The usual incision was made and the tumor reached, when its surface was seen to be of a dark purple hue, with a net-work of large veins ramifying in every part of its serous covering. A trocar and canula was introduced but nothing but blood followed the withdrawal of trocar. The sac was then torn open and its contents, of a soft brain-like substance, was emptied out. The growth was now turned out of the abdominal cavity. There was no distinct pedicle, but an attachment to the intestine of about the size of a half dollar, was seen. Dr. Alter says, "when I emptied the sac of its soft contents I examined carefully, with *extreme care*, the part fastened to the intestine and my fingers passed into the intestinal tube." A silk cord was tied around the attached portion and the remainder of the growth removed. The omentum was attached to the growth for a space of two inches; this was ligated and cut away, the abdominal wound closed, etc.

Death occurred September the 25th, at 4 P. M.

This growth sprang primarily from the submucous tissue of the small intestine and grew with great rapidity, as the patient was only aware of its pressure last April and by September she measured as above stated, thirty-eight inches. *Microscopical* examination of preparations taken from several portions of the growth clearly show it to be a spindle-celled sarcoma and a most typical one at that. The small intestine is an unusual site for this neoplasm. As far as I am able to ascertain there is no recorded instance of its occurrence in this situation. My friend, Dr. Formad, to whom I have shown the growth concurs with me in this statement. On the day of operation I noted, as well as I could, the absence of all secondary deposits. The surrounding intestines and peritoneum were apparently normal, not even unduly hyperæmic.

No post-mortem was permitted.

Chronic Parenchymatous Nephritis Complicating Phthisis Pulmonalis. Presented by Dr. Jas. Tyson.

My object in showing these kidneys is to illustrate the morbid anatomy of the renal complications which so frequently attend the later stages of phthisis pulmonalis. It is very well

understood that when œdema of the feet and legs present themselves in cases of consumption, the end is not far distant; but the renal complication which is at the bottom of such œdema is overlooked. It is, of course, not impossible that there should be œdema in the last stages of phthisis from simple alteration in the composition of the blood—a watery state of it—but in the majority of instances it means, that the kidneys have become involved. As to the form of disease affecting the kidneys, it is acknowledged that it may be either lardaceous disease or chronic parenchymatous nephritis, but think the impression prevails,—it was at least, my own until recently—that the amyloid kidney is the most frequent complication. I believe, however, that the parenchymatous nephritis is more common and it becomes a matter of interest, if not of importance, to be able to diagnose between these two conditions. It is well known that the microscopic and clinical characters of the urine in those two forms of kidney disease are often identical, so that no assistance is afforded by the study of the urine. The history of the case, of course, leads to neither particular form but suggests both. One criterion only can I recal to aid us and that is the presence of enlarged liver. So commonly associated is the enlarged amyloid liver with amyloid kidney, that the absence of it almost necessarily precludes the presence of amyloid kidney. At least I am sure we would err less frequently if we were to consider all cases of renal disease attending consumption, unattended by enlarged liver, to be parenchymatous nephritis rather than lardaceous disease. It is true we often have enlarged fatty liver in consumption, but the degree of enlargement never reaches that of the amyloid liver and hereafter I shall be inclined to consider all cases of renal disease complicating consumption to be parenchymatous nephritis unless they are associated with enlarged liver, when I shall conclude that they are instances of amyloid disease.

Dr. Bruen considered that the passage of large quantities of urine and the history of specific disease or of prolonged suppuration preceding the kidney trouble, would warrant a diagnosis of amyloid renal disease.

Dr. Musser would ask whether the heart was hypertrophied and what was Dr. Tyson's experience regarding hypertrophy of that organ in cases of amyloid disease, and of chronic tubal inflammation of the kidneys? If not too late, he would like to call attention to the absence of cardiac hypertrophy with an infinite degree of obstruction in the renal circulation in the case Dr. Eskridge had presented. This is in direct opposition to the view held by some that the hypertrophy of the heart is a sequence of the renal obstruction in chronic interstitial nephritis.

Dr. Tyson replied, that in this particular instance he did not see the heart and could not tell whether it was hypertrophied or not. The same law holds good for amyloid kidney as for chronic nephritis; if the case last long enough hypertrophy is sure to be found sooner or later.

Ecchymoses of the Mucous Membrane of the Stomach. Presented by Dr. J. M. Barton.

The history of the case was that of chronic lung trouble. The stomach, upon being opened, presented an irregularly shaped extravasation of blood about two-thirds of an inch in diameter. The mucous membrane covering the effusion was healthy, as it was in the rest of its extent. Dr. Tyson remarked, that these effusions are not uncommon, but he had never seen them except in their pin-point form.

Dr. Roberts asked if there had been violent vomiting recently.

Dr. Barton replied that nothing of this sort had been observed prior to death.

THURSDAY EVENING, NOV., 23, 1882.

Great Hypertrophy of the Heart due to Severe Valvular Lesions. Presented by Dr. M. O'Hara.

J. C.—male æt. 30 yrs., laborer, contracted syphilis when 18 years of age. Health good until within past three years, when he began to suffer from pain in the left breast, palpitation of the heart, and slight dyspnœa after violent exertion. Gradually becoming worse and unable to work he was admitted into St. Mary's Hospital in June 1882. He there complained of great pain over the upper part of the sternum, in the left arm and shoulder. He lost considerably in weight, his appetite was poor, and albumen was present in small proportion in his urine, although casts were absent. He had marked dyspnœa on admission, which increased rapidly until sleep could only be obtained in the upright position. There was no evidence of pulmonary trouble. With the fore-arm flexed to a right angle the brachial arteries become prominent at each impulse of the heart, the pulsation of the carotids was wavy and prolonged; the temporals were tortuous and visibly pulsated: no retinal arterial pulsation was seen. Retinal venous pulse was marked, but no visible venous pulsation was detected elsewhere. The left præcordial region was specially prominent. The apex beat was most distinct in the sixth and seventh interspaces on a perpindicular line running midway between the left nipple and the anterior border of the left axilla. The heart's impulse was usually forcible and diffused, but at times it became weakened and wavy. In the second left intercostal space a systolic impulse was observed. The pulse rate varied from 80 to 120 per minute, struck the finger with considerable force, but at once lost most of its volume. All these phenomena were exaggerated by raising the hands above the head. The radial pulses were unequal, but the brachial arteries presented no differences. No hepatic pulsations were felt. The cardiac area of complete dullness was nearly twice its normal size, the increase being downward and to the left. Over the sec-

ond and left costo-sternal articulation, the closure of the aortic valves was distinctly heard, and with this a slight deastolic murmur. A systolic murmur was also heard over the same spot. The systolic murmur was nearly lost in the carotid and sub clavian arteries, but the diastolic one remained distinct. On a line with the second costal cartilage over the sternum, and to the left of this bone, the diastolic and systolic basal murmurs were most intense. Over the cartilage of the left fourth rib, the murmurs heard at the base of the heart were less distinct or were obscured by the development of other murmurs. In this situation, a short sharp, presystolic murmur, apparently prolonged into a systolic one, was detected. At the apex and just above it, the systolic murmur became intensified, its blowing character aiding in differentiating it from the short harsh murmur which immediately preceded it. From the eighth to the seventh rib, and from the sternum to a point about five or six inches to the left, a diastolic murmur of considerable intensity was heard. The character of the diastolic murmur over this area was different from that presented by the second sound murmur at the base of the heart, and its intensity was much greater. Posteriorly at the lower angle of the left scapula a blowing systolic murmur, entirely deprived of its harsh presystolic complications, was heard. Dr. Eskridge thought the physical signs justified him in venturing the diagnosis of restriction and regurgitation at the mitral orifice; a rare form of acute regurgitation produced by the inability of one of the aortic semilunar valves to close while the others acted properly; great hypertrophic dilatation of the left ventricle, and to a less extent of the left auricle; and aneurismal dilatations of one of the great vessels, probably of the pulmonary artery near its origin from the heart. The patient rapidly sank, œdema of the lower portion of the trunk and lower extremities with hydrops pericardii pleures and of the peritoneum developed. He died exhausted in August, nearly two months after admission to the hospital.

Sectio Cadaveris.—Brain. Some venous congestion of the pia mater. The brain substance and the ganglia nearly normal in appearance. Thorax. The pericardium was nearly filled with serum the only evidences of inflammation were a few patches of recent lymph at the left anterior upper portion of the sac. The heart weighed 18ozs. the increased weight being chiefly due to excentric hypertrophy of the left auricle and ventricle. The right ventricle was dilated, with slightly thickened walls. The aortic valves were insufficient and thickened. The posterior leaflet was normal in shape, but the others curled upon themselves on the aortic side of the orifice. The stenosis was slight. The mitral orifice was button-hole shaped and the valves failed to close on account of calcareous deposits in their tissues, this degeneration also involving the inner surface of the left side of the auricle contiguous to the valves. The auricular surface of

the valves was fairly smooth, but in the ventricle just beyond the valves, and attached to them hung a bony substance about 1-8 of an inch in diameter. The left auricular appendix was much hypertrophied. The valves at tricuspid and pulmonary orifices were normal. The pulmonary artery was considerably dilated. The pleural cavities contained several ounces of serum. There were old adhesions at the apex of the right lung posteriorly, and at the same part of the left lung anteriorly. Several patches of recent lymph were also found at the lower part of the left pleural cavity. Abdomen. The peritoneal cavity contained considerable serum, and its veins were engorged. The liver was enlarged with distended veins. The kidneys were highly congested. The spleen was double its normal size and softened.

Abscess of the Liver following arrested Menstrual Discharge from Exposure to Cold; Pyæmic Abscesses of the Lungs and Spleen; perforation of the Bowels; Severe Heart Complications; Death during the Seventh Week. Presented by Dr. J. T. Eskridge.

N. D. age 28 yrs., was a factory girl whose father and two sisters had died from heart disease. She had had two attacks of inflammatory rheumatism but had never complained of heart trouble. Her fatal illness began at night, by arrested menstrual flow, and severe cramping abdominal pains, coming on after exposure to cold during the previous afternoon. Fever and pain in the right lower side of the abdomen continued for three days, when she was able to work again for about a week. Jaundice began early, was well marked during the first three weeks, was slight afterwards but lasted untill her death. Her symptoms three weeks after the beginning of the attack, when admitted to St. Mary's hospital in Dr. Hickman's wards, were great prostration, emaciation, loss of appetite, pain in the right inguinal and lumbar regions, and irregularly recurring chilly sensations. Two weeks later, when first seen by Dr. Eskridge, the liver dullness extended nearly to the anterior superior process of the ilium, and the normal tympanitic note of the right inguinal region of the abdomen, was replaced by one bordering on dullness. The tenderness was so great that neither fluctuation nor a tumor could be detected, if such existed. Great tympany soon developed and obscured the physical signs. A pyæmic condition from which the patient perished in about two weeks set in, attended by chills, fever, sweating, low temperature and diarrhœa. A few days before death she passed considerable pus by the bowels. The surface temperature taken over the chest and abdomen showed the latter to be about two degrees warmer than the former, but all parts of the abdomen were of nearly the same temperature. Stenosis of the aortic and mitral orifices with inefficiency of the valves of the latter, and a dilated hypertrophy of the left auricle and ventricle were recognised during life. The post-mortem examination revealed the diagnosed lesions of the heart, and dem-

onstrated the possibility of visible left auricular pulsations. The liver weighed eighty ounces, (the right lobe being alone enlarged) and contained a large abcess surrounded by several smaller ones with which it was connected. The cœcum and its appendix were surrounded by about six ounces of pus, the latter being circumscribed by adhesions. Two openings were found in the black and gangrenous cœcum, one where its appendix had sloughed off, the other due to perforation of the bowel by the pus. The portion of the liver external to the hepatic abcess was firmly adherent to the abdominal wall, and from this point (about two inches above the crest of the ilium) the pus had burrowed its way and formed a sinous leading to the right inguinal region under Pouparts ligament. A direct communication between the liver abcess and the accumulation of pus surrounding the cœcum was seen.

Dr. Eskridge thought that the demonstration of the possibility of visible left auricular pulsation in the second left intercostal space, and of the occurrence of a functional murmur in the pulmonary artery without dilatation of that vessel, was worthy of notice at present, as Dr. Broadbent had so recently advanced views almost diametrically opposite. Dr. Eskridge considered mitral stenosis of not infrequent occurrence, and said, with care, the mitral presystolic murmur was not usually difficult to detect.

The four physicians, including himself, present at the autopsy, then thought that the hepatic abcess was secondary to the inflammation and suppuration around the appendix and cœcum, but he, after carefully analysing the clinical evidence and pathological lesions in favor of each condition, was satisfied that the case began as one of primary abcess of the liver following exposure to cold while the patient was menstruating.

The discussion on both these preceding specimens which presented somewhat similar heart lesions, was now opened:

Dr. J. C. Wilson, who said that there was one point of special clinical interest in Dr. Eskridge's case, viz., the chronology of the lesions. He thought that the extensive multiple abcess of the liver and lungs were secondary to the abcess around the caput coli. In some cases the determination of the primary source of the embolism was difficult to find, but in this case it was perfectly clear.

Dr. Bruen said that he would like to go on record among those who had observed auricular pulsation in cases of mitral obstruction, in which the stenosis was extreme.

Dr. Nancrede remembered that in his experience, flexion of the thigh on the abdomen was an almost invariable early symptom in cases of perityphlitis, from which he would infer, that as this thigh flexion did not occur in Dr. Eskridge's case until within ten days of the fatal termination of the case, that the peri-cœcal abcess was secondary to that in the liver.

Dr. Tyson said that he had been much impressed with the marked increase of the surface temperature in the neighborhood

of the abdominal abcess as compared with the general body temperature. As to the chronology of the various affections, he was inclined to believe that Dr. Wilson was correct.

Dr. Eskridge said, in reply to Dr. Wilson, that he could appreciate how the perityphlitis might be mistaken for the primary trouble, and the hepatic suppuration for the sedondary, such a mistake (for he felt certain that the abcess of the liver was the primary affection) was made by all, including himself, who were present at the post-mortem examination. The pathological and clinical facts in favor of primary hepatic abcess were given at some length in his remarks in connection with the presentation of the specimens. In brief the clinical features were as follows;

Deep and early jaundice following exposure to cold, pain in the right side of the abdomen attended by fever and gastric irritability of a few days' duration: an intermission of a week, during which she was able to work followed, after which gradually increasing weakness with dull abdominal pain, attended by loss of flesh and appetite confined her to bed: ten days before death the development of intense tympany associated with flexion of the right thigh upon the abdomen. The hepatic suppuration was confined to the right side of the right lobe, all the smaller abcesses directly communicating with the large one, and the left lobe of the liver being apparently healthy.

Tongue and Larynx from a case of Elephantiasis Græcorum. Presented by Dr. A. C. W. Beecher.

The case from which these specimens were removed was reported in the *Photographic Review of Medicine and Surgery*, No. 6, Vol. I Aug. 1871. M. æt. 26 yrs. born in Cuba of Spanish parents, married. His father was living when the patient died, in 1872; the mother died when he was an infant. He was wet nursed by a colored house-servant who was unmarried, but had had several children by different individuals. She was healthy as far as known, with the exception of sores upon her feet. He had none of the diseases of early life except measles and mumps. His health was good up to fifteen years of age, when yellowish pink spots appeared upon his body, accompanied by neither pain nor itching. They remained about one year and disappeared during a voyage to Spain. While there he was attacked by neuralgia of the little fingers, extending above the course of the ulnar nerve to the elbow, which was relieved and he returned to the West Indies. Six months after his return he experienced a second attack which lasted for one month. In 1862 he came to this country to study, and after one year became the subject of repeated catarrhs chiefly affecting the throat. Itching of both forearms and legs soon after developed. In 1866 œdema of the hands and feet, which did not extend beyond the wrist or ankle set in, producing a sensation of stiffness of the fingers and toes. Blebs then suddenly appeared in various sizes upon the dorsum of the

hands and fingers extending over the whole length of the latter. At times a sharp pain in the hands and fingers arousing him from sleep would herald one of these bullous attacks. The blebs contained a whitish opaque fluid, and when burst were succeeded by dark brown scabs transversely cracked and furrowed over the joints. Under these crusts were excavated ulcers. The finger tips and ends of the toes presented similar ulcers, over which the nails grew, and these latter being brittle, broke off when long, next, frequent hæmorrhages from the nose coming on while laughing or in mental or physical excitement. The nose became tender, was much swollen, and discharged moderately offensive pus, and the bridge of the nose began to sink, gradually assuming its present appearance, face became similarly affected, the ulcers healing leaving distinct cicatrices. The eruption never entirely ceased, new blebs and ulcers forming while others healed. There was marked emaciation. There were abcesses in many spots on the border of the hair, which was everywhere scamy, and the skin was of a dusky hue. The muscles of the arms were much wasted and the skin presented small white cicatrices. Over both patellæ and olecranon processes large hard firm reddish nodules were seen. The hands were much deformed with wasted contracted fingers, having numerous small hard tubercles scattered beneath the skin of the dorsal surface of the hands. Numerous ulcers, mostly covered with irregular black scabs covered the back of the fingers. A markedly varicose condition of the veins near the wrist was observed. The hair of the head is normal in quantity but is hard and harsh, while there was total loss of eyelashes and eyebrows, and the beard was scanty. There was a large hard tubercle over one frontal bone near which was an old ulcer. The nose was much sunken, there was an ulcer over the right zygoma covered with a black rupial like scab, the face was marked with scars, and the ears were likewise deformed with numerous cicatrices. Many of the teeth were decayed and broken off close to the gums. The tongue was much thickened with greatly enlarged papillæ. The velum palati was almost gone from ulceration and yellowish white tubercles existed in the pillars of the fauces. The larynx was much contracted by thickeneing of its mucous membrane. The epiglottis was about twice its normal thickness and had several well marked tubercles upon it. The voice was much impaired, weak and had a peculiar husky sound. There were deep sloughing ulcers over each tendo Achilles. Tactile sense is very much impaired, as on the dorsum of the hands, where the touch is now almost absent and what is recognised as referred to some boint in the neighborhood of the point of contact. The sense of pain is almost entirely absent in the hands and forearms, becoming more marked as the body is approached; a pin passed through the pulp of the middle finger gave absolutely no pain. The difference between very hot water and that of ordinary temperature was readily perceived, more-

over there was general increased cutaneous sensiblity to temperature changes. Taste and smell are somewhat impaired. Very slight anæsthenia of the trunk exists. Sight is good although prolonged use of the eyes is painful. The general health of the patient is fair. There seems to be no trace of venereal disease. Sexual power was absent. Frequent neuralgic pains of the legs and arms were complained of. The atrophy of the hands, feet, fingers and toes was appreciable from month to month. The cornea next became ulcerated, the conjunctival surfaces became adherent, and almost total blindness ensued; swallowing was almost impossible towards the last, owing to the pain produced by the throat ulcers and because of imperfect closure of the rima glottidis, fragments of food entered the larynx, producing violent and exhaustive coughing. Respiration was also so much impeded that he died Oct. 29th 1872, partly from dyspnœa, and partly from starvation. Up to the death he suffered intensely.

AUTOPSY.—Rigor mortis well marked. Great emaciation of the entire body noted. The surface of the tongue was fissured, the papillæ enlarged, with the remains of tubercles well marked toward its base. The epiglottis was curved on its long diameter, thickened and stiff, with its upper margin eroded by a large ulcer. A deep ulcer was situated in the mucous membrane near the apex of the left great cornu of the hyoid bone. Narrowing from thickening of tissues involved the trachea at its upper part. and produced such stenosis of the chink of the glottis that an ordinary quill could not be passed between the vocal cords.

Upon section of the ulnar nerve near the elbow, extensive degeneration was detected.

This case was examined by Dr. Duhring and Dr. R. M. Berthold—the latter making a laryngoscopic examination,—who both considered it to be of the mixed variety of tubercular and anæsthetic leprosy.

The case is interesting both from its rarity, and the possib lity of other cases being brought here from California and New Brunswick, in both of which places it is not uocommon. Again, its resemblance to syphilis at first led me into error, altnough, said Dr. Beecher, I recognised something strange about the disease. The late Dr. Maury saw the case with me and had no doubt of its syphilitic nature until Dr. Duhring's examination convinced him that it was really leprous. Erasmus Wilson says: The resemblance to secondary syphilis is so striking that an error is certain, excepting on the part of those who have had an opportunity of seeing and observing leprosy.

Dr. Wilson asked whether the family history had been investigated. Dr. Beecher replied that he had carefully questioned all concerned, but had ascertained nothing special except that when such cases occurred in wealthy families, the fact was always hushed up. Dr. Wilson said that in this connection he would call the attention of the members to a very able article in the last

issue of Hay's journal, where the writer took the view that leprosy was contagious, maintaining that it should be investigated where it was of rare and recent occurrence. Dr. Wilson also referred to its occurrence among recent emigrants in certain of our north-western States. Dr. Carl Seiler said that Dr. Beecher had asked him to examine the specimens of the larynx and tongue of the case of elephantiasis. The dorsum of the tongue was deeply furred and the papillæ appeared enlarged. The epiglottis was thickened very stiff and rolled about in its long axis like a dry leaf. On its upper free margin was a crescentic ulcer with raised edges and numerous smaller roundish ulcers were scattered over the laryngeal surface of the epiglottis. Extensive ulceration of both ventricular bands and vocal cords existed so that the opening of the ventricles was almost entirely occluded. The ulcers were symmetrical and most marked towards the anterior insertion of the vocal cords. Almost one-fourth of an inch below the cords was a cicatricial band projecting from the sides of the subglottic cavity and leaving an elliptical opening through which a crow-quill could hardly be passed. Below this obstruction the mucous membrane of the subglottic cavity was studded with small round ulcers, while the trachea seemed healthy. No further lesions could be detected by the naked eye, although doubtless such had existed but had been unobserved, owing to long preservation in alconol. Dr. Seiler regretted the absence of the records of the laryngoscopic examination made before patient's death; still the lesions seen in the specimen would indicate symptoms of dyspnœa, aphonia and dysphagia, and it was astonishing how the patient could respire at all through the narrow opening left by the cicatricial lesion below the glottis. The chief interest, however, centered in the great similarity of the lesions in this unique case, with those found in syphilis and lupus of the larynx. He had seen ulcerations in the syphilitic laryngitis almost identical in shape and location, with those seen in the specimen, and he had remembered having seen two or three specimens of lupus of the larynx, when in Vienna, which bore a strong resemblance to syphilis. Lupus and leprosy of the larynx could not be diagnosed from one another by laryngoscopic examination alone, but other signs and symptoms outside of the larynx had to aid in the diagnosis. Thus in syphilitic laryngitis there were always sharply defined bands of a deep red color, on the free margin of the velum palati. The lupus affections of the skin of some parts of the body always preceded, co-existed with or shortly followed the manifestations of the disease in the larynx, while in leprosy, the larynx was usually attacked later in the disease when other portions of the body clearly showed marks of the pest.

Dr. Little remarked that having conversed with Dr. F. H. Enders, who had seen a great many cases of lepresy in the Sandwich Islands, he had been interested to note that the eyelids

affected in the early stages ulcers resulting, and the conjunctiva and cornea, or even the whole eyeball becoming involved. The affection of the eyelid is sometimes the first symptom or occurs during the first or second years of the disease. The lids were involved in the case described and the eyeball subsequently.

Dilatation and Atheroma of the Pulmonary Artery With an Opening through the Interventricular Septum. Presented by Dr. Bruen.

EXAMINATION OF THE HEART—LEFT SIDE.—Slight ventricular hypertrophy, mitral valves somewhat thickened at the margins with roughening of their auricular aspect, valves competent, the left auricle is normal as is also the aorta and the aortic valves. Examination of the right is of most interest. Two of the semilunar leaflets of the mouth of the pulmonary artery are nearly destroyed by atheromatous changes, the third segment is much thickened and projects as a leaf-like fold, roughening the mouth of the pulmonary artery. This vessel is dilated to nearly twice its normal size, forming really an aneurismal dilation. The vessel walls are covered with a fringe of vegetations of inflammatory origin, as due to atheromatous changes. The right auricle is very small and imperfectly developed, the bulk of its cavity being formed by the auricular appendix. The tricuspid valves are much thickened, but are competent probably. Between the two ventricles is an orifice large enough to admit the forefinger. It is directly beneath one of the tricuspid leaflets and is lined with endocardium and must have allowed a free interchange of the blood of the two ventricles. The walls of the right ventricle are thickened and its cavity somewhat dilated. Dr. Bruen said that this case was interesting because perforation of the ventricular septum is often congenital and dependent on obstruction of the orifice of the pulmonary artery, the perforation being due to the pressure of blood within the replete right ventricle. This pressure causes an arrest in the development of the ventriculor septum. The pathology of the present case probably is as given above, but there was no pulmonary artery obstruction. A similar case is recorded in the Medico-Chirurg. Trans., Vol. XV., by Fletcher (2). There was no cyanosis—cyanosis is usualiy dependent on a deficiancy of cardiac evolution or else on retarded evolution of the pulmonary artery or aorta. As a consequence there is deficient cardiac power to carry on the circulation; or the pulmonary artery or the aorta are narrower than normal so that in any of these conditions venous repletion results and cyanosis. Mixture of the venous and arterial blood is then not the usual cause of cyanosis, although it may be a factor. Walsh says "grant these perforations of the ventricular septum co-exist with constriction of the pulmonary artery orifice and cyanosis seems to become a certainty." In one case there is an example of incomplete development of ventricular septum and

deficient development of the right auricle without cyanosis. (3.) Pulmonary artery disease is consistent with a fair amount of health and that compensation by the right heart may occur just as in cases of aortic disease. (4.) Descriptions of pulmonary disease call attention to bronchitis, pneumonia, hydrothorax as sequential states. In our case no subcomplications were present until before death, when she finally succumbed to congestion of the lungs, added to the cardiac state. (5.) Tho aneurism of the pulmonary artery formed a pulsating tumor on the left side of the sternum between the secondary fourth rib extending outward from the border of the sternum and including an area covered by a trade dollar. (6.) Over the tumor a post-diastolic and a presystolic bruit like murmur could be heard at a point between the second and fourth ribs, while close to their junction with the sternum a hoarse systolic murmur could be heard. The bruit was localized, the heart systolic murmur was carried into the entire arterial system.

Dr. Bruen then detailed at length the differential diagnosis of these murmurs. During life, dilatation of the pulmonary artery with mitral obstruction had been the diagnosis. The patient was a woman æt. 24 years, a syphilitic and was under observation from Nov 18th to July 18th.

Dr. Eskridge had not had any difficulty in differentiating a presystolic from a diastolic murmur. He thought the bulky thickening of the mitral valves in the specimen presented by Dr. Bruen, was sufficient to give rise to a mitral presystolic murmur. If we adopt the theory of Dr. Austin Flint, Sr., that a mitral presystolic murmur may occur in aortic regurgitation, wher mitral valves are perfectly healthy, it seemed to him that there was no difficulty in accounting for the presystolic murmur from the regurgitant blood from the pulmonary artery into the communicating right and left ventricles of this case, especially as thickening, loss of elasticity and some rigidity of mitral valves existed. The chromometry of the pulsation that occurred in the left second intercostal space, he thought could have been obtained by adopting Sanson's modification of Balfour's method of comparing the time of occurrence of precordial pulsations.

Dr. Shakespeare said that he had been struck with one point of great interest in connection with inflammation of the lining coat of the pulmonary artery as evinced by the vegetations. These growths are very rarely found in the venous current. He had certainly never seen any other specimen, although he did not doubt that some had been seen or reported by other observers Arterial blood seemed a requisite for the evolution of such diseased action. Evidently the site of the perforation being just below the aortic and pulmonary valves, brought about just this necessary prerequisite, viz., abundance of arterial blood with the venous.

Dr. Wilson called attention to the evident relation between

the incomplete ventricular septum and the condition of the pulmonary artery which is greatly dilated and atheromatous and presents the appearance often met with in the aorta very rarely in this vessel. The wall of the right heart is relatively thickened. This fact, together with the position of the opening in the interventricular wall which favors the flow of the blood from the left ventricle towards the pulmonary artery renders in probable, almost certain, that the more forcible contraction of the left heart has constantly forced a portion of its arterial blood into the right heart, thus increasing the current entering the pulmonary artery and occasioning, first, hypertrophy of the right ventricle and second, a subacute inflammatory process in the pulmonary artery itself, in consequence of the increased volume and force of the blood-current. Dr. Shakespeare's observation that such growths as are here seen, require for their existence, arterial blood is in accordance with this view.

Sarcoma of the Prostate Gland. Presented by Dr. W. E. Hughes.

The specimen which I have the pleasure of presenting to you this evening, was taken from a patient in the Univertity Hospital, under the care of Dr. H. R. Wharton.

W. G., æt. 35 years, admitted to the University Hospital suffering from retention of urine. Before his admission numerous unsuccessful attempts had been made to empty the bladder by means of a catheter. On admission the patient complained of much pain in the hypogastric region, which was the seat of a smooth, round swelling, reaching almost to the umbilicus. He stated that he had gonorrhœa some years previously which had been followed by a troublesome stricture which had been perfectly relieved by the passage of bougies. For more than a year previous to his admission he had suffered at irregular intervals from difficulty in urination. The urine had never been bloody but its passage had often been attended by great pain. It was found impossible, on account of numerous false passages, to introduce a catheter into the bladder. On introducing a finger into the rectum the prostate was felt smooth, rounded and immensely enlarged. The patient was put to bed, ordered suppositories of belladonna and opium and to have a warm poultice applied to the abdomen. This treatment relieved almost immediately and urination became freer. For a few days he did well, but the difficulty in urination soon began to increase and by the fifth day after his admission the symptoms had become so urgent that it was deemed advisable to repeat the attempt to pass a catheter. This attempt was as futile as the first. Then aspiration of the bladder through the abdominal walls was attempted, but only a small quantity of blood was obtained. In introducing the canula it gave the sensation of passing into a solid body and

careful palpation revealed the fact that there really was a solid body apparantly occupying the whole bladder. It was now decided to open the urethra at the base of the bladder through the perineum and the operation known as Lock's was selected. The operation was followed by the escape of a small quantity of urine. After this the patient did well with the exception of an attack of dysentery, until the ninth day after the operation, when peritonitis suddenly developed. Autopsy (two hours after death). Upon opening the abdomen a thick yellowish-red purulent liquid, having a urinous odor, was found bathing the intestines, the coils of which were everywhere bound together by recent adhesions. The omentum was in places firmly adherent to the intestines and contained numerous irregular nodulated masses, varying in size from that of a pea to that of a hen's egg. These masses, on section, presented a whitish-yellow color. In the lower part of the abdominal cavity was a large irregularly shaped mass, firmly adherent to the small intestines, colored omentum and walls of the pelvis. On careful dissection the tumor was found to originate in the prostate gland. On section it presented in parts the characteristics of a scirrhus, in others more of encephaloid, in other places there were large loculi with reddened, irregular friable walls, filled with a liquid similar to that found in the abdominal cavity, though no connection between these loculi and the abdominal cavity could be found. No trace of normal prostrate gland nor seminal vesicles could be discovered. The bladder, containing a few ounces of urine was found in front of the upper portion of the growth, its upper boundary almost on a line with the umbilicus. Its anterior wall was apparently perfectly normal, its posterior wall, resting on the tumor, was thickened, raised, red and velvety. The ureters were normal and opened in the usual position. The urethra, as far as could be seen, ran along the anterior surface of the tumer and was not involved by it. The weight of the growth was five pounds, two ounces. The kidneys, stomach, lungs and intestines were normal. The peritoneum and capsules of the liver and spleen contained several secondary growths. The brain was not examined. Microscopic examination showed the growth to be a typical small, round-celled sarcoma. The secondary deposits were similar in structure to the primary growth. The submucous and muscular tissue of the bladder wall were somewhat infiltrated. The growths in the capsules of the liver and spleen had commenced to penetrate those organs.

Melanotic Sarcoma of Orbit, with Metastases to Liver; etc, Presented by Dr. Shakespeare.

The patient was an elderly woman who had been operated upon by Dr. Heyl at the Episcopal Hospital some six months before death, the whole contents of the orbit having then been

thoroughly removed. Recurrence took place, the cavity being filled with a black fungating mass; the left nostril gave vent to a blackish discharge and the various internal organs became involved, notably the liver. Death took place from exhaustion. Most of the metastases are entirely melanotic, but some in the liver show at their periphery, a distinct whitish zone. Dr. Shakespeare remarked upon the singular fact that orbital growths were usually melanotic, although they might not spring from the choroid coat of the eye, as in this case, where all pigmented structures had been removed months ago.

Special Article.

Article IX.

Medical Education Abroad. By Reynold W. Wilcox, A. M., M. D., Assistant House-Surgeon, Woman's Hospital in the State of New York.

In view of the fact that many physicians, particularly those recently graduated, are debating the advisability of continuing their medical studies either at home or abroad, it seems fitting that one who has been over the ground, and thus being able to speak from personal observation, may if possible, point out what can be obtained at the various medical centers.

At the outset those who study abroad can be pretty accurately divided into three classes, the first comprising those physicians instructors or specialists, who knowing the general literature of their work, wish to verify their knowledge by personal contact with the men whose writings they are familiar with. This class know whom they wish to meet and in a great measure knew that they can have their expectations realized, therefore this class virtually falls without the scope of this paper. The remaining two classes come under a different heading and as the writer has met so frequently those who were disappointed in their work simply because they had set out with false ideas and because their expectations could by no possibility be realized, he feels impelled to write a few words that some misapprehensions may be removed. The first of these remaining classes would comprise men who, with some preliminary education, have had good medical advantages and since their graduation have held a residence in a general hospital. The last class has, as its members, those who have recently received their medical degree and have had but little clinical work. This class especially although willing, even eager to work, has found the most difficulty in finding the clinics desirable, and consequently is the class most dissatisfied with their foreign study. The writer believes that those men, whose clinical advantages have been limited, will find their time best occupied and the preparation for private practice more thorough if they will take a residency in a general hospital in this country or will attend a post-graduate school.

The methods of work abroad are so different, the treatment so unlike that of this country, that from him who has not by personal clinical work, established for himself a standard of comparison, to put this man into a foreign clinic or a foreign lecture

room, setting aside all difficulties of language, is to make him all the more confused in his theoretical knowledge. To give a man that readiness and accuracy that he can only obtain in a small class and under the direction of an experienced clinical teacher either to obtain a general clinical training or to do work in special departments of that school, which is post-graduate in fact as well as in name, must be the place which is economical in time as well as labor. It will immediately be objected that the *prestige* arising from foreign medical study is thus lost, but it must be remembered that the necessities of medical education are now greatly changed. Further, a man's position in the medical profession, in the end, stands on his own merits and he best wins his place who is the best prepared for his work. Besides too many men have dawdled away their two and three years abroad, studying some, dissipating more, many of whom return without a speaking knowledge of the language of the countries in which they professed to study, that the intelligent practitioner is no longer deceived by statements of time spent at this or that university.

It seems the proper conclusion to be drawn from the facts at our disposal is that if one's time is limited, he can spend it more profitably in this country either as a resident in a hospital or in a post-graduate school than in any foreign medical center. If time allows, after the above mentioned period has elapsed, he can with advantage study abroad. Concerning the different places a few words will be spoken. As the professors and courses are by no means a fixed quality, absolute accuracy is unattainable.

Berlin: Here the objection holds, that obtains at Paris, namely, that the clinics are somewhat scatterd, but to a less degree. In general the number of students is less than at Vienna, so that there are better opportunities for seeing and hearing. Since Langenbeck's retirement, the writer believes that Bergman takes his place. The clinics formerly given in surgery were always excellent, reasonable in price and the field of view not unnecessarily over-crowded by assistants. The operation courses were conducted not so much by the assistant, as by the professor thus ensuring excellent instruction. Although the instructions are fewer in number, they are of longer duration, cheaper and rather more thorough than at Vienna. On Pathology the lectures of Virchow are magnificent but for practical work one studies under him only in name. although his assistants are men of ability and reputation as instructors, and the facilities for work are unsurpassed. On Medicine the name of Frerichs is well known, as is that of Martin in Diseases of Women. On Obstetrics Schröder has a good reputation. The opportunities for one, who has previously taken a "Touch Course" in the way of examination and seeing difficult cases and operations are excellent but while the material is all sufficient for the number of students, it is less in amount than in Vienna and consequently there is less variety

in the cases. On Children's Diseases Henoch's clinic is said to be the best on the continent, thorough and scientific, of this however the writer can not speak from personal knowledge. The courses here are not very crowded and one is apt to receive more attention and see less mercenary spirit manifested than in Vienna. The expenses of living are less than at the latter place, but correspondingly greater than at the smaller university cities, where fewer foreign students resort.

Vienna: It is commonly said that one can accomplish more in a given period of time at Vienna than in any other university city. Although this in a measure, is true yet no such broad statement will hold. At almost every hour in the day some lecture or course is being held and one can concentrate his work on one or a few subjects or he can arrange his work so as to cover almost any amount of field in medical science. It is this fact that has given such large numbers of students to this university during the past few years. Inseparable to the shortness of the courses—four to six weeks—the amount of field that each is supposed to cover, lies the superficiality of the teaching, to the writer's mind the strongest objection of all. Because the physician at this stage has, or ought to have, made a general survey of medical science and now should begin to fill in his deficiencies, to extend his knowledge so that his judgment may be well balanced. A student having taken one course at once sees how incomplete it is, but on taking the second, he finds himself going over the same ground and ending where he did in the previous one. On some subjects a supplementary course is given, but in those the writer has found, that the first which must be taken before the second is of little or no value. Again, if the instructor tends to thorough in a part of his subject, he is apt to be painfully minute but though this may exactly supply the deficiencies of one man, it is unsa isfactory to others. Some attempt to remedy this failure by attending courses on the same subject, given by different instructors. This is a partial remedy but unfortunately in some departments where there happens two professors in the same subject, the theme of the instruction is a large amount of self-laudation on the part of the lecturer, detraction of the merits of his rival, and a small portion is devoted to the subject in hand. Then another tendency has sprung up, owing in part, to the large number of gentlemen taking courses, namely the sub-division of these courses. This is not done in the interest of thoroughness as the same subject matter that formerly constituted one course is now spent over two or three, under different names, nor indeed in the amount of practice, which remains the same, but in most cases, for the pecuniary advantage. Again the advertising of a six weeks' course, which one finds to end at the fourth week, the omission of exercises on various pretexts, yet the original price being charged as if each of the three covered the whole gronnd of the original course. This the writer is happy to state is not

generally practised, but mentions it only that students may be warned and thus avoid the catch-penny courses.

Of the advantages that Vienna offers, the greatest is the access of the students to the patients and the opportnnities for acquiring skill in the use of instruments. These indeed are very great, while some may here acquire a brutality of manner in dealing with patients that would not be tolerated in this country, yet with care one can guard against this habit and reap the benefits without detriment to his bearing. Certain manipulations one may spend some time in practicing, that may be of little use to him on his return. All the time however he will find his skill in diagnosis increasing and his knowlede of pathology improving, while his treatment will be but little bettered. As far as material goes the student usually has access to all that he cares to handle and generally all he can do justice to. In fact it is at this stage that clinical work is the most important and didactic lectures, for reasons given, are of little use. With a good theoretical knowledge one can do almost as well to work over the cases himself and pay no attention to what is said about them.

If the writer was asked to name those branches which are best conducted at Vienna he would perhaps say Midwifery, then Dermatology, although not what it was under Hebra yet is excellent, Pathology with its wealth of material has until lately been lacking in direction, still the courses have been good. In Medicine Bamberger's lectures could be followed by any one with advantage, and Nothnagel bids fair to be a fitting successor to Duchek. In Surgery Billroth, though the writer believes one can learn more from Albert, in spite of his crowd of assistants interfering with a view of the patient, always has a large following. The study of Gynæcology is rather expensive but the treatment is hardly good, though there is plenty of material and no restraints are placed in one's way. Recently it has been reported that the regulations concerning the government of the clinics for Diseases of Women have been somewhat changed, the effect of which is likely to be a limitation of the privileges of the foreign students, but to what extent the writer is unable to state definitely. In Ophthalmology Stellwag, Arlt being retired, in Otology, Politzer are familiar to all from their eminence in the profession.

Heidelberg: One finds in this old university town the very atmosphere of study. The facilities as regards amount of material can not compare with those of Berlin or Vienna, but there is sufficient for all practical purposes. In Surgery Czerny gives an excellent clinic and grants many privileges impossible in a larger hospital. One of the most skillful operators in all Germany, his lectures are always candid and always well up with the times. The number of beds at his disposal and the variety of his operations make his clinic one of the very best that the writer has ever attended. In Pathology, Arnold gives thorough, careful, personal instruction of the highest order, particularly one

can learn most satisfactorily the historical side of the branch. In Medicine Erb the reported successor of Friedreich is likely to maintain the former excellence of the clinics. In Ophthalmology, Becker, in Otology, Moss give good clinics and are well known, Though hardly of general interest yet Gegenbauer in comparative Anatomy, Kühne in Physiology give excellent lectures and well worthy of attendance. The writer wishes to call attention to the facilities of close communication between student and instructor and the friendly interest manifested by the latter that one finds in the smaller Universities. Especially when the clinical material is sufficient for practical purposes as at Heidelberg, one can profitably spend a part of his time at least, in one of the smaller cities. The writer will always have among his pleasant recollections that of the time spent, time spent profitably, in the city of Heidelberg.

Paris: In spite of the time lost on account of the interference of the hours of one clinic with those of another, the wide separation of the hospitals and the annoyances incident to the same, the writer believes that the advantages of Paris as a place of medical study has been underestimated during the last few years. Certainly the advantages for the study of venereal and nervous diseases, especially, are unsurpassed. All the hospitals and with few exceptions the courses, are free; in the majority, even a special card, which is obtained gratis, is not even required; this is in marked contrast to the large amount that one expends for fees at Vienna. In General Surgery one can follow Gosselin, Richet, Verneuil, or Trelât or in Medicine the names of Hardy, Potain, Seé and Lasségue are a sufficient guarantee that time is not uselessly employed in attending their visits and clinics. To all is familiar the name of Charcot, and his clinic is perhaps the best attended of all at Paris. The exercises of Ball are very instructive and scholarly, lectures are delivered at the school by Debove.

The vastness of the resources at the disposal of the teachers of this specialty leave nothing to be desired. In Venereal Diseases, Fournier, Mauriac and Martineau give excellent clinics, with perhaps the greatest variety of manifestations of Venereal Diseases to be found any where on the Continent. The writer followed the lectures on that much neglected branch of Medicine, Hygiene, given by Bouchardat, with great interest. During the last year a course of experimental Therapeutics was given in the Laboratory of the new Hotel Dieu which was very interesting; but the careless manner in which the experiments were performed detracted much from their scientific value. As regards Pathology and Diagnosis the Paris school is not so far advanced as the German, yet in those particulars it surpasses anything seen in Great Britain. The treatment is more satisfactory than the nihilism that one meets so constantly on the other side of the Rhine.

Edinburgh: Of this city the writer is at loss to know what

to write. He expected to find maintained its former excellence but came away disappointed. In Medicine fair instruction and quite practical, was given by several men but it was devoid of the accuracy of the German school and the Therapeuties savored of a bygone medical era. In the interpretation of physical signs the writer found the instructors at variance with the commonly received opinions. At first he attributed the discrepancy to himself but competent gentlemen have assured him that the deductions here differ from those generally accepted, and even from those held at London. In Surgery the clinics of Bell, Annandale and the recently appointed Prof. Chein are good with a fair amount of material, although the surgery seemed hardly conservative at times. An excellent clinic in Ophthalmology is given by Robertson. The position of clinical clerk would hardly be acceptable to an American as the beds that he would have charge of as regards histories and examinations are so few in number that it would not repay one's time, and even the resident staff have a too short and a too small service.

The writer is often asked concerning foreign degrees. If any one who is a graduate of a respectable American school wishes an M. D. degree on the continent or an M. R. C. P. he need have no doubts as to his ability to obtain them. One knowing the language of the country, having fulfilled the term of residence which can often be evaded in part, ought to readily pass the examinations. The writer has compared the questions set with those in the examinations of this country and has always found them by no means more severe than those of such a school as Harvard, for example, in this country. If one wishes the M. R. C. S. or M. R. C. P. he will need to review his Anatomy, otherwise the examination is very like those in this country.

Editorial.

Article X.

OUR FORTIETH YEAR.

The Journal enters upon its fortieth year of existence with the proud satisfaction of having made a host of friends. It wishes to extend its most cordial thanks to those friends for the support they have given it to enable it to weather so many storms, which, as a rule, as so destructive to medical journalism. The St. Louis Medical and Surgical Journal stands to-day the oldest medical monthly in the United States and feels a pride in this as it shows how staunch its supporters have been.

We will not promise too much for the coming year, but assure our readers that we will make extra efforts to make the Journal interesting aud instructive and will give special prominence to features of the greatest value to the practitioner of medicine. We will continue to supply matter of first quality at almost nominal rates and will make it our sole endeavor to please our subscribers; and in this connection would cordially invite all to criticise freely and let us know their wishes in regard to the Journal. Hoping that all have passed a Merry Christmas and a Happy New Year, we enter upon our Fourth decade and hope that all subscribers may witness our semi-centenial.

We regret exceedingly to inform our readers that Dr. A. Wislizenus, on account of failing eyesight, will no longer be able to furnish the Journal with the Meteorological Observations. He has been a faithful contributer for many years and the absence of his name will create a void which we much deplore.

Book Reviews.

Article XI.

A Practical Treatise on Diseases of the Skin. By Louis A. Duhring, M. D. Third Edition Revised and Enlarged. 8vo., pp. 685. (Philadelphia: J. B. Lippincott & Co., 1882. St. Louis News Co.) Price $6.00.

As the author states in his preface, no specialty of medicine has grown so rapidly as that devoted to skin diseases and on that account new editions of treatises are more frequently demanded Duhring's work, however, possesses so much intrinsic merit that. even without this it would meet with a demand at the hands of physicians. The work is practical and systematic and in the highest degree instructive.

This edition has been thoroughly revised and considerable new matter added, the endeavor having been to keep the work up to the present time. The classification adopted is a modification of Hebra's. In this edition we notice that molluscum contagiosum has its name changed to m. epitheliale and is placed in the class of hyportrophies.

This book is the best American one issued on the subject and treats of the skin affections as observed in this country. It has not only met with praise and enconniums at home, but has been highly spoken of abroad. It is an excellent text-book and cannot be surpassed in conjunction with the plates issued by the same author.

Mental Pathology and Therapeutics. By W. Griesinger, M. D. Translated from the German Second Edition by C. Lockhart Robinson, M. D., Cantab. and James Rutherford, M. D., Edin. 8vo., pp. 375. (New York: Wm. Wood & Co., 1882. St. Louis: Hugh R. Hildreth Printing Co.)

This is the July number of Wood's Library and the author is regarded as the acknowledged and representitive leader of the modern German school of medical psychology. The work is divided into five parts devoted to general considerations, to the cause and mode of origin of mental disease, to the forms of these diseases, to their pathological anatomy and to their prognosis and treatment. The work is well written and will repay careful study, although it dates back some half dozen years and may be a little backward on some points on this account.

DISEASES OF THE RECTUM AND ANUS. By CHARLES B. KELSEY, M. D. 8vo., pp. 299. (New York: Wm. Wood & Co., 1882. St. Louis: Hugh R. Hildreth Printing Co.)

This is a very systematic treatise and constitutes the August number of Wood's Library. The anatomy, physiology and pathology of the rectum and anus are considered.

In regard to cancer of the rectum and excision, the author formulates the following propositions:

1. Although there have been a few cases of excision in which the cancer has not returned in a number of years, such a result is so rare as not to justify the exposure of the patient to the risk of immediate death which attends the attempt to remove extensive disease.

2. The operation is chiefly valuable as a palliative measure and as such it compares favorably with colotomy, both in prolonging life and relieving pain.

3. When the disease reaches above three inches from the anus, or involves neighboring parts so as to render its entire removal without injury to the peritoneum questionable, the operation is contra-indicated.

4. The operation is not followed by any annoying after-consequences which are of sufficient gravity to contra-indicate its performance.

CEREBRAL HYPERÆMIA. Does it Exist? A Consideration of some Views of Dr. William A. Hammond. By C. G. BUCKLEY, B. A., M. D. 24mo., pp. 129. (New York: G. P. Putnam's Sons, 1882. St. Louis: Hugh R. Hildreth Printing Co.) Price $1.00

The author makes a very spirited attack on Dr. Hammond's work on cerebral hyperæmia and criticises it with no sparing pen. He deals with it mercilessly and his concluding paragraph, from which a general idea of the whole may be found is as follows:

"If extravagant unreason in medicine can go any further, I am unaware of the fact and incapable of comprehending it. And if from such evidence as is here adduced—while I believe strict justice has been done the monograph—the reader can convince himself that such a disease as 'cerebral hyperæmia' in the sense here referred to has any existence outside Dr. Hammond's imagination, his discernment and reasoning faculties are of an order to which I am a stranger."

THE MULTUM IN PARVO REFERENCE AND DOSE BOOK. By HENRI C. LEONARD, A. M., M. D. 34th thousand 32mo., pp. 100. (Detroit: Illustrated Medical Journal Co., 1882.) Price, cloth 75 cts., paper 30 cts.

It is unnecessary to make any comments or call attention to this little work as it is well known to every student and practitioner of medicine as the number of copies printed shows. It has met with a large sale, doubtless from the manner in which the matter is concentrated.

THE INTERNATIONAL ENCYCLOPÆDIA OF SURGERY. A Systematic Treatise on the Theory and Practice of Surgery, by Authors of Various Nations. Edited by JOHN ASHHURST, Jr., M. D. Illustrated with chromo-lithographs and wood-cuts. In six Volumes. Vol. II., 8vo., pp. 754. (New York: Wm. Wood & Co., 1882. St. Louis: Hugh R. Hildreth Printing Co.)

The present volume is fully up to the standard of the first one issued and opens with articles devoted to local surgical affections such as wounds, burns, abscesses, etc. Some very elaborate articles are contributed upon the various venereal diseases. This volume is replete with sound and interesting matter and together with the editor we must regret the loss by death, of three of the collaborators. Dr. Otis, who was to have contributed the article on gunshot wounds, died ere he had written his article. His place will be filled by Prof. Conner, of Cincinnati. Dr. Lenox Hodge who had undertaken the article on injuries and diseases of the bursæ also died ere he could complete his task and it has been undertaken by Dr. Nancrede, of Philadelphia. Happily Dr. Hodgen, of this city had completed his article upon ulcers, before his death, and this posthumous contribution of our eminent surgeon will be read with increased interest.

All the articles are carefully prepared and evince a spirit of progress and truthfulness that is not only a source of gratification to the reader, but shows surgery in its true light.

THE TREATMENT OF DISEASES BY THE HYPODERMATIC METHOD. By ROBERTS BARTHOLOW, A. M., M. D., LL. D. Fourth Edition, revised and enlarged. 12mo., pp. 365. (Philadelphia: J. B. Lippincott & Co., 1882.)

The success of this little work may be surmised from the fact that it has already reached a fourth edition. The author prefers *hypodermatic* to *hypodermic* as being the more correct term. He makes some general remarks in the beginning and then gives what might be considered the materia medica of the subject and

here he has taken full cognizance of all the latest advances made in this department of therapeutics.

He considers each agent, its systematic effects, local effects, dose, physiological effects, accidents and therapy. He is thorough and conscientious and has prepared an excellent hand-book for all those who may have a *penchant* for this method of medicating.

ON ASTHMA: Its Pathology and Treatment. By HENRY HYDE SALTER, M. D., F.R.S. First American from the last English Edition. 8vo., pp. 284. (New York: Wm. Wood & Co., 1882.)

This, the September number of Wood's Library, deals with a subject of the highest importance to the general practitioner. The author considers asthma as essentially a nervous disease, the phenomena being mostly excito-motory or reflex. He speaks at great length on the treatment and of the effects of tobacco and various other substances.

His conclusions are derived from a series of two hundred and twenty-three cases of tabulated cases. Besides this there is given the history of some fifteen cases and these two together constitute, perhaps, the most valuable portions of this book.

A TREATISE ON THE SCIENCE AND PRACTICE OF MEDICINE, or the Pathology and Therapeutics of Internal Diseases. By ALONZO B. PALMER, M. D., LL. D. Vol. II., 8vo., pp. 866. (New York: G. P. Putnam's Sons, 1882.)

This is the second volume of a good work, the first volume of which we noticed some time since and can only reiterate what we then said of it. In the present are considered diseases of the respiratory and circulatory systems; the urinary apparatus and its diseases; diseases of the male sexual system; diseases of the brain and nervous system, both functional and toxic; and concludes with parasitic diseases.

A PRACTICAL LABORATORY COURSE IN CHEMISTRY. By JOHN C. DRAPER, M. D., LL. D. pp. 61. (New York: Wm. Wood & Co., 1882.)

This is a practical book for the pocket, so arranged that the student may record the result of his work. There is a table of contents by means of which references are readily and easily made. The name of its author is a sufficient guarantee of the practicability and value of this hand-book.

Books and Pamphlets Received.

Article XII.

Transactions of the Medical Society of the State of New York, for the year 1882. 8vo., pp. 474-17. (Syracuse, N. Y.: Published by the Society, 1882.)

The Hospital Treatment of Diseases of the Heart and Lungs, with over Three Hundred and Fifty Formulæ and Prescriptions, as exemplified in the Hospitals of New York City. By Charles H. Goodwin, M. D. 12mo., pp. 196. (New York: C. H. Goodwin, M. D., 1883.) Price $1.50

Fourth Annual Report of the State Board of Health of Illinois. 8vo., pp. 200. (Springfield, Ill.: H. W. Rokker, State Printer, 1882.)

Annual Report of the Supervising Surgeon General of the Marine Hospital Service of the United States for the Fiscal Year 1882. 8vo., pp. 804. (Washington: Government Printing Office, 1882.)

The American Settlers's Guide: A Popular Exposition of the Public Land System of the United States of America. By Henry N. Copp. Third Edition, 8vo., pp. 114. (Washington: Published by the Editor, 1882.) Price 25 cts.

Annual Report of the National Board of Health for the year 1882. 8vo., pp. 43. (Washington: Government Printing Office, 1882.)

Preliminary Report on the Yellow Fever Epidemic of 1882, in the State of Texas. (Marine Hospital Service.)

Menstrual Amblyophia. By M. F. Coomes, M. D. (Reprinted from the *Medical Herald*, Oct., 1882.)

Some Thoughts on Phthisis, with Special Reference to the Value of Laryngeal Symptoms in Diagnosis. By M. F. Coomes, M. D. (Reprinted for the *Archives of Laryngology*, July, 1882.)

Vick's Floral Guide for 1883.

Analysis of Eight Thousand Cases of Skin Disease. By L. Duncan Buckley, A. M., M. D. (Reprinted from the *Archives of Dermatology*, Oct., 1882.)

A Large Fibro-Cyst of the Uterus and Ovarian Cystoma, Co-Existing with Pregnancy; Operation; Recovery. By Walter Coles, M. D. (Reprint from the *St. Louis Courier of Medicine*, Dec., 1882.)

Special Announcement of the Tenth Regular Session of the Hospital College of Medicine, Louisville, Ky. Regular Session of 1883.

Prohibition vs. Personal Liberty, or the Liquor Traffic critically examined in the Light of Science, Theology and Civil Government. By Abner M. Collins, A. M., M. D. 24mo., pp. 160. (St. Louis: John Burns, Publisher.) Price, paper 35 cts.; cloth, 50 cts.

How we ought to Live. A Practical Guide, written in plain, intelligent Language, for the Preservation of Health and the Attainment of Longevity, designed to enable all so to live that they may reach Old Age in Health and Comfort. By Joseph F. Edwards, A. M., M. D. 8vo., pp. 636. (St. Louis: John Burns, Publisher, 1882.)

News Items.

Article XIII.

Thin asserts that isolation is not necessary in ring worm, and that danger of contagion may be obviated by keeping in contact with the patch some fatty substance.

We have received the *New York Medical Journal*, the successor of the New York *Medical Journal and Obstetrical Review*. The *Journal* is a twenty-six double column quarto weekly and presents a handsome appearance, besides being replete with matter of the highest order of excellence. It will prove a formidable opponent to the *Record* and *News*. The price is five dollars per annum and it is cheap at that.

The *American Journal of Obstetrics* will no longer be published as a quarterly with monthly supplements, as heretofore, but will be published monthly. This is necessitated from the fact that subscribers now-a-days wish to have news as early as possible and quarterlies are too bulky for the average practitioner to handle.

The *Sanitarian* has also enlarged to a quarto form and with the coming year becomes a weekly of sixteen pages, the subscription price being raised to $4.00 per year.

We have received the initial number of the *St. Joseph Medical Herald*, a new journal published and edited by Drs. J. L. Geiger and F. C. Hoyt, of St. Joseph, Mo. Is a forty-eight page monthly, published at the rate of $1.00 per year.

Messrs. J. B. Lippincott & Co., of Philadelphia, announce that they will shortly issue the Fifteenth Edition of the United States Dispensary for 1882. It will be in all respects thorough and the new pharmacopœia will be fully expounded and discussed in all its parts. And the most recent non-officinal medicines, as well as those long out of date, will be carefully considered in the second

part of the work. Profs. H. C. Wood, Joseph P. Remington and Sam'l. P. Sadtler are the editors and a sufficient guarantee for its trustworthiness and accuracy.

OUR esteemed co-temporary, the *New York Medical Record* has been enlarged and larger type used and it now prasents a very handsome appearance.

THE *Louisville Medical News* has has changed its cover to white and is enlarged to sixteen pages weekly. Drs. Yandell and McMurtry believe in making it a success.

THE *Canadian Journal of Medical Science* has changed its name to the *Canadian Practitioner* and we hope that the new publication will conticue to enjoy the success it had under the old name, as we have no doubt it will.

A few months ago our excellent contemporary, *Walsh's Quarterly Retrospect*, was temporarily suspended to give its editor time to establish a farm for the production of vaccine bovinum. The *Arkansaw Doctor* has quietlv yielded up the ghost. The *Missouri Valley Medical Monthly* is fatally ill. The *Michigan Medical News* has its emunctories clogged with gall, and may die of marasmus or the green sickness at any time. The St. Louis *Clinical Record* perished long ago in convulsions, and is cold and silent beside the *Evansville Reporter*.—[*Medical Herald*

THE *Weekly Drug News* and the *American Pharmacist* have joined issues and now appear as one journal with the caption of the *Weekly Drug News and American Pharmacist*. The new journal will embody the good qualities of both and judging from the first number, will be of the greatest value to druggists and pharmacists.

THE *Compendium of Medical Science*, published by Dr. Brinton, Philadelphia, will with this year become a quarterly instead of a half-yearly publication, as heretofore.

THE *Medical and Snrgical Reporter* has an assistant editor, Dr. J. F. Edwards officiating in that capacity.

THE Chariton County Medical Association meets on the last Thursday of each month at Salisbury, Mo. The papers promised for 1883, are as follows: Gynæcology, by Dr. L. S. Crosser, of

Brunswick; Puerperal Convulsions, by Dr. Martin, of Dalton; Pneumonia in Children, by Dr. G. M. Dewey, of Keytesville; Anæsthetics in Labor, by Dr. B. F. Wilson, of Salisbury; Chloral—its Danger, by Dr. Perkinson, of Salisbury; Dysentary, by Dr. Welch, of Salisbury; Calomel, by Dr. Banning, of Salisbury; Hæmorrhagic Fever, By Dr. Glenn, of Shannondale. Dr. J. C. Vaughn is President and Dr. J. S. Wallace, Secretary of this thriving society.

AT the Annual Meeting of the St. Louis Medical Society held Jan. 6, 1883, the following officers were elected:

President—Wm. Barret, M. D.
Vice-President—G. Dudley, M. D.
Recording Secretary—A. H. Ohmann-Dumesnil, M. D.
Corresponding Secretary—G. Hurt, M. D.
Treasurer—W. E. Fischel, M. D.

A NEW DISEASE.—A California physician who discovered a new disease—love madness—has been experimenting with the person afflicted therewith and has produced the "love parasite," or bacillus micrococcus. This he cultivated up to the twentieth generation, and with the parasites of that generation he inoculated a number of subjects. The inoculation was invariably successful, symptoms of the disease appearing a very short time after the operation. A bachelor, aged fifty, on the first day after the inoculation had his whiskers dyed, ordered a new suit of clothes and a set of false teeth, bought a top buggy a bottle of hair restorer, a diamond ring, and a guitar, and began reading Byron's poems. The inoculation produced symptoms of the same nature in a young lady of forty-five. She spent five dollars at a drug store for cosmetics, bought a lot of new hair and a croquet set, sang "Empty is the Cradle," sent out invitations for a party, and complained that the Chico young men do not go into society. An inoculated youth of seventeen, employed in a country store, did up a gallon of molasses in a paper bag, and also, in a fit of absent-mindedness, put the cat in the butter-tub and threw some fresh butter out of the window. Finally, he sat in a basket of eggs while looking at a photograph of a pretty girl, and was discharged for his carelessness. The Chico doctor is still experimenting, and will soon lay the result of his observations before the medical world.—[*Med. Record.*

FLOWERS PRESERVED FOR THREE THOUSAND YEARS.—In the sarcophagi of the mummies recently discovered in the royal mosques of Deir-el-Bahari in Egypt, a number of flowers were found, which were as fresh and natural as if they had only been a few months old, although they have been entombed for more than three thousand years. Dr. Schweinfurth has studied these flowers and has recognized the larger number thereof. There appears to be one among them which belongs to an extinct species, while others are now only met with in Abyssinia. The fruits deposited with the mummies have also been wonderfully preserved. For instance, upon some dates found with the mummy of Queen Isimkheb, the last royal person which was there interred, the impression of the fingers which had handled them could be easily recognized.—[*New Remedies.*

RECKLESS MIDWIFERY.—A horrible death has occurred at the village of Eye, near Petersbourgh. A woman was attended in her labor by two neighbors, one of whom professed to be a midwife, the other a nurse. She was delivered shortly after midnight, on Saturday last, of a living child; and when Mr. Beecroft, a retired surgeon living close by, was called in soon after the delivery, he found the unfortunate woman dead, with her uterus, one ovary, and fallopian tube lying in the bed beside her, these parts having been actually torn or cut away by the women in attendance.—[*British Medica Journal.*

WHAT A BLIND MAN SEES.—The French scientist, Plateau, who for the last forty years has been totally blind, has just published a little paper on the sensations which he experiences in his eyes. He states that he has constantly in his eyes the sensations of light; his field of vision is divided into spaces of which some are very clear, and others sombre or almost black. These spaces are not precisely limited, but run into each other at their borders; but what is remarkable is that their general tint alternates between gray and reddish. For example, if it be gray M. Plateau perceives now, in a few hours it will be red; then, a few hours later the gray again, and so on. The reddish tint is that obtained by mixing pale rose color, or rather flesh color with a certain quantity of black. The relative arrangement of these different spaces is always the same, but the intensity of their tints varies. The central space shows itself sometimes very

clear and sometimes very sombre; above and below, as far as the limits of the visual field, there is sometimes clearness, sometimes obscurity. It is the same with the space to the left; there is generally a vertical, almost black band, and the space to the right of that, as far as its limit is nearly always clear and ruddy. These ppearances seem to M. Plateau to fill the whole extent of his ordinary visual field. He believes the distance at which they are is small. These same appearances follow all the movements of the eyes, as if they resulted from a modification of the retinas. It appears to M. Plateau that the two eyes do not participate in the same manner in the tints in question; but he is absolutely incapable of distinguishing what belongs to the other. He has not been able to establish any coincidence between the changes of the general tint and work of digestion.—[*Boston Journal of Chemistry*.

Professor Nordenskjold, during his Arctic voyage, was perplexed by the question, What becomes of the bodies of animals which die a natural death? He very seldom found such remains, and declared that on Spitzbergen it was easier to find vertebræ of monster extinct reptiles than the bones of the seal, walrus, or bird of the present day. The problem is yet unsolved.

The Medicinal Oleates.—The normal oleates—that is, when the oleic acid is fully saturated by the base—contain the following percentage of the respective bases:

Oleate of aconitia,	adout	69.6	per cent.	of aconitia.
Oleate of atropia,	"	50.6	"	" atropia.
Oleate of morphia,	"	50.3	"	" morphia.
Oleate of quinia,	"	53.5	"	" quinia.
Oleate of strychnia,	"	54.2	"	" strychnia.
Oleate of veratria,	"	67.7	"	" veratria.
Oleate of bismuth,	"	22.2	"	" Bi_2O_3
Oleate of copper,	"	12.7	"	" Cu O.
Oleate of iron,	"	11.7	"	" Fe O.
Oleate of lead,	"	29.	"	" Pb O.
Oleate of mercury,	"	28.4	"	" Hg O.
Oleate of zinc,	"	12.9	"	" Zn O.

—[*Squibb's Ephemeris.*

A Peculiar Diagnosis.—A case of small-pox at Fort Worth,

Texas, was diagnosed by the irregular practitioner in attendance as "erysipelas from the toes to the knees, measles from the knees to the waist, and seven years itch from the waist to the top of the head." In consequeoce of this diagnosis several persons, who were allowed to visit the patient, contracted small-pox from head to foot.

THE ARMY MEDICAL MUSEUM AND LIBRARY.—There is every reason to fear that at the next session of Congress an effort will be made to merge these valuable collections into the general Congressional Library.

THE fifth international Congress of Hygiene which will meet at The Hague, Holland, 1884, will award the prize of two thousand francs (£ 80 sterling) offered by the London Society for the Prevention of Blindness to the author of the best essay written in English, French, German or Italian, on the Causes of Blindness and the practical means for preventing it.

Besides this prize the International Society for the Improvement of the condition of the Blind, reserves to itself, the right to award a second prize of one thousand francs (£ 40 sterling) or two prizes of five hundred francs (£ 20 sterling) each and a silver gilt medal with a diploma, should it see fit, to such of the essays as should, in the opinion of the international Jury for the principal prize, be deserving of it; the last mentioned prizes will be distributed at the centenary festival of the first blind institution founded at Haüy, which will take place in Paris, 1884.

The fourth International Congress of Hygiene, which met at Geneva in September 1882, has adopted for this competition the following programme, as prepared by the London Society for the Prevention of Blindness:

I. The study of the causes of Blindness:

a. Hereditary causes. Diseases of parents, consanguineous intermarriages.

b. Infantile eye diseases. Various inflammations of the eyes.

c. School period and time of apprenticeship, progressive shortsightedness, etc.

d. General diseases. Diathesis, various fevers. Chronic poisoning, etc.

e. Trade influences. Wounds and accidents, etc. Sympathetic ophthalmia.

f. Social and climateric influences. Contagious ophthalmias. Unhealthy habitations; defective lighting, etc.

g. Neglect of treatment and bad treatment of eye affections.

II. The study of practical preventive means:

a. Legislative means.

b. Hygienic and professional means.

c. Educational means.

d. Medical and philanthropic means.

MALARIA IN SKIN DISEASES.—A CORRECTION. By LUNSFORD P. YANDELL.

Some time since the following paragraph appeared in the *Michigan Medical News*, and has been widely copied in the medical journals of the country:

"A century ago John Hunter divided all skin diseases into three classes, one of which is cured by mercury and the iodides, a second by sulphur, and a third class which the devil himself can't cure. Dr. L. P. Yandell, who quotes Hunter as above, is given credit for a much less complex classification than even this He attributes all skin eruptions to malaria. Quinine is a specific for malaria; ergo, quinine is the remedy for all skin eruptions. Q. E. D."

I trust that my confrères of the press well do me the kindness and the justice to publish the correction now given, as the matter is not only one of personal interest to the writer, but is of scientific interest to the profession. The subjoined extracts are from a supplement to a report read to the American Dermatological Association, September, 1877. A copy of this report will be gladly sent to any one desiring it:

"From the criticisms which have been made on my views, I find that I have not succeeded in making myself perfectly understood. What I have contended for, and what I have reiterated, is simply this: Malaria is the chief source of acute skin disease. Scrofula is the chief source of chronic skin disease. The more inveterate cases of skin disease are often due to the coëxistence of these two things. The specific exanthems, of course, are not included here, but I contend that their progress and termination are often largely influenced by the presence of malaria, or stru-

ma. I do not claim that malaria and struma are the sole causes of the dermatoses. Indeed, many of the dermatoses may exist independently of malaria or struma, and most frequently some exciting cause is necessary to develop the cutaneous eruption. Among the exciting causes are irritants, injuries, insufficient or improper ingesta, vicissitudes of temperature, alcohol, dentition, menstruation, parturition, lactation, etc. The proofs of the truth of my views are, in the first place, that the diseases of the skin are cured more certainly and more quickly by the antimalarial remedies on one hand, and by the antistrumous on the other, than can be done by any other line of therapeutics; and in the second place, that careful and painstaking investigation will, in the majority of dermatoses, make apparent the existance of the malaria or struma, as the case may be.

"In conclusion, I desire to impress upon the reader that my views are not confined to the skin diseases. What produces disease here will produce it in all other parts of the body. What i true of dermatology is equally true of gynecology and ophthalmology and otology, and it is just as true of the diseases of all the other regions of the body."

Subsequent observation has confirmed my belief in the correctness of my views.

SULPHUR AND MALARIA.—At a recent meeting of the Paris Academy, M. d'Abbadie called attention to some facts regarding marsh fever. Some African elephant hunters from plateaus with comparatively cool climate brave the hottest and most deleterious Ethiopian regions with impunity, which they attribute to their habit of daily fumigation of the naked body with sulphur. It is interesting to know whether sulphurous emanations, received involuntarily, have a like effect. From inquiries made by M. Foque, it appears that in Sicily, while most of the sulphur mines are in high districts, and free from malaria, a few are at a low level, where intermitteut fever prevails. In the latter districts, while the population of the neighboring villages is attacked by fever in proportion of ninety per cent. the workmen in sulphur mines suffer much less, not more than eight or nine per cent. being attacked. Again, on a certain marshy plain near the roadstead in the island of Milo (Grecian Archipelago), it is hardly possible to spend a night without being attacked by intermittent fever, yet on the very fertile part near the mountains are the

ruins of a large and prosperous town, Zephyria, which 300 years ago numbered about 40,000 inhabitants. Owing to the ravages of marsh fever the place is now nearly deserted. This change was brought about by the transfer of sulphur mining in the neighborhood to the opposite side of a mountain range. The decadence of Zephyria has nearly corresponded to this transference. The sulphurous emanations no longer reached the place, their passage being blocked by the mountain mass. Again, on the west side of the marshy and fever-infested plain of Catania, traversed by the Simeto, is a sulphur mine, and beyond it, at a higher level, a village which was abandoned in the early part of this century because of marsh fever. Yet there is a colony of workmen living about the mine, and they seem to be advantageously affected by the emanations.—[*Medical Gazette.*

THE EVIL EFFECTS OF BADLY MADE SHOES.—At a recent meeting of the Hygienic Congress at Geneva, COLONEL ZIEGLER, who is chief surgeon of the Federal Army, read a paper on the evil effects of badly made shoes, with special reference to hygiene and the marching powers of soldiers. Colonel Ziegler mentioned that the Swiss examining surgeons are compelled to reject every year 800 recruits—the strength of a battalion—for malformation of the feet, resulting from badly fitting shoes. The foot is in reality a bow, so elastec that at every step it contracts and expands, lengthens and shortens, and a line drawn through the centre of the great toe intersects the heel. But shoemakers, who are generally utterly ignorant of the anatomy of the foot, do not give room enough for the lateral extension of the great toe. They crib, cabin and confine it until it is forced against the other toes. Hence arise frequent inflammations of the great toe, corns, ulcerations, and sometimes veritable articular inflammation. Another evil, which Colonel Ziegler ascribes in great measure to bad shoeing is flat-footedness, whereby the arch is converted into a straight line, and prolonged walking and marching rendered impossible. Another cause of this defect is the habit of carrying heavy weights at an early age; but in most instances, Colonel Ziegler contends perfect shoes would restore the foot to its normal condition. The first obstacle to a reform in the shape of shoes lies in the fact that it would involve a great expense in the shape of new lasts, an expense that shoemakers are naturally loth to incur. Fashion has also its lasts, and shoemakers con-

sider themselves bound to conform to the prevailing mode. A test of a perfect pair of shoes is that, when placed together they should touch only at the toe and the heels; the soles should follow the sinuosities of the feet, and to give room for their expansion should exceed them in length by fifteen to twenty millimetres—[*Med. News.*

THE ADVANTAGES OF A DRY LOCAL TREATMENT IN OTORRHŒAL DISEASES.—One of the greatest hinderances to cure in an ear disease accompanied by otorrhœa, whether the disease be due to inflammation in the auditory canal or middle ear, is the presence of granulations and polypoid growths. Yet one of the oldest forms of treatment of otorrhœal disease has been by copious syringing and instillation of various fluid medicines. Hence, in such treatment of this class of aural diseases, moisture has been repeatedly applied to, and kept in the ear, a naturally heated locality. Now as heat and moisture tend to promote granulations and keep up a discharge, it is very apparent that a moist treatment of otorrhœa in many instances has a tendency to keep up rather than to check morbid discharge from the ear.

On these grounds, therefore, Dr. CHAS. H. BURNETT, in a paper with the above title, in the *American Journal of the Medical Sciences* for January, 1883, holds that the syringe and all forms of drops should be omitted from the home treatment by the patient in cases of otorrhœa. The most the patient should be directed to do is to dry his ear according to its need, by running into the canal and down to the fundus a twisted pencil of absorbent cotton. The surgeon is to use the syringe only when it is absolutely necessary to remove by it the matter from the ear, and thus prepare the organ for the application of medication by his hand. This latter part of the treatment should consist in the blowing of powders into the ear. Of these Dr. Burnett recommends one prepared by triturating equal parts of tincture of *Calendula officinalis* with boracic acid (gr. to minim), allowing evaporation, then rubbing one part of the thus calendulated boracic acid with one or two parts of pure boracic acid. Alum should not be used, on account of its tendency to produce furuncles. Comparative tables are given, which show that by the dry method of treatment the average duration of treatment may be shortened from 212 days under the old plan, to 34 days by the dry method.

STATISTICS OF SYMPHYSIOTOMY.—DR. ROBERT P. HARRIS publishes in the *American Journal of the Medical Sciences* for January, 1883, a careful analysis of the statistics of symphysiotomy, with comparative tables of the early and later cases, showing that the operation has been more frequently performed in Italy in the last seventeen years than in the previous eighty. In his first table, extending up to 1858, out of seventy cases there was a maternal mortality of 70 per cent., and a fœtal mortality of 67 per cent. The second table begins with the resuscitation of this operation in Naples, in 1866, and as far as he had been able to learn ,there have been 53 operations in that city, saving 43 women and 42 children. From a report of Prof. Morisani, by whom most of these operations were performed, we learn that—

1. All of the fifty operations (in table 2) were performed upon rachitic subjects, whose pelves were generally flattened antero-posteriorly. In four or five instances the pelves were simply dwarfed in dimensions. There was no case of rostrate pelvis, as *Malacosteon* is very rarely met with in Naples.

2. Version was not resorted to except in the transverse positions. The forceps were applied in about one-fourth of the cases.

3. The separation at the pubes amounted to about 2 inches (50 mm.), which was obtained without any effort, and without producing any lesion of the sacro-iliac sychondroses.

4. The immovable dressing secured the firm union of the symphysis pubis in all the cases that recovered.

5. The women had good health after the operation.

6. There were no malformed infants. Nearly all of the children were sent to the Foundling Hospital to be taken care of.

7. *Phlegmasia alba dolens* did not occur in any of the women.

8. There were no pelvic lesions left, as a sequel of the operation, with the exception of one case of iliac phlegmon.

9. Vesico-vaginal fistula occurred in but one case, and this was easily cured by an operation.

COLLEGE FOR MEDICAL PRACTITIONERS OF ST. LOUIS, MO.—

1st. This is a new Institution (and the first of the kind ever established), any one is therefore disposed to wait and see the result before they partake of its advantages.

2nd. The workings of the College is not as yet well understood by the profession.

To the first, the Faculty will explain by saying that this

Institution is not a Medical School, where any one may matriculate or graduate; it is neither a so-called Post-Graduate School nor a Polyclinic arrangement, nor as an annex of a Practitioner's course to a Medical School; it is simply what its name implies, a College for Medical Practitioners, an incorporated Association where every Practitioner in good standing may become an Associate Member if he complies with our rules, Sec. 3, Art. VII., viz.:

SECTION 3.—ASSOCIATE MEMBERS may be made under the following conditions:

1st. They must have attended a full course of lectures and the clinics of all the departments of this College.

2nd. Must be a graduate of some recognized and reputable Medical School.

3rd. Must apply in their own handwriting for examination.

4th. Must have passed a satisfactory examination in all the branches taught in this College.

5th. And must present to the College a prepared physiological or pathological specimen (wet or dry) or a cast or drawing, with the name, address and the Alma Mater of the applicant attached.

To those who have so qualified and complied with all the above requirements, a diploma of Associate Membership shall be granted upon the payment of twenty five dollars ($25.00). The Treasurer shall then give a receipt for their annual dues for five years. They shall then have the privilege of attending the regular annual meetings of the Faculty, with seat and voice but no vote. They shall be entitled to life membership, and to have the right to attend the lectures and clinics at any time, free of charge, as long as they pay dues, which is five dollars ($5.00) annually, after the first five years. Material used by them in dissecting, extra.

To the second, we will explain by stating that this Association has three grades of members:

1st. Faculty Members, their number is limited to twelve.

2nd. Honorary Members, number unlimited.

3rd. Associate Members, number unlimited.

The Chairs of the Faculty members are as yet not all filled, and probably will not be for some time to come, for obvious reasons. But the present Faculty will fill all the chairs on all the branches taught in this College, with competent teachers temporarily. And as Associate Members are given the preference in any appointment, it will be necessary, to obtain a continous appointment, to first become a member. The Faculty may also appoint two or more lecturers on the same subject, as the number of teachers is not limited.

This Association has no Board of Directors, the Officers are the Trustees.

The College is open to the whole Medical Profession, graduates or non-graduates, and Certificates of Attendance, upon a single branch or the full course, will be given to all without an examination.

Thus it will be seen that this College is not gotten up for the profit of a few, but for the benefit of a liberal profession at large, where the young Practitioner may come and gain more knowledge and the older Practitioner who is busily engaged, and has not much time for reading, may go with perfect ease and satisfaction and obtain all advancement in medicine and surgery, in a short time and thereby review and refresh his knowledge and have a few weeks' profitable recreation from a laborious practice and where he can better obtain the latest views by a mutual conversation in one day than by reading a week.

The Second Session begins Feb. 5th, 1883, and ends March 10th, 1883;

The Third Session begins May 7th, 1883, and ends June 9th, 1883.

METEOROLOGICAL OBSERVATIONS.

By A. WISLIZENUS, M. D.

The following observations of daily temperature in St. Louis are made with a MAXIMUM and MINIMUM thermometer (of Green, N. Y.). The daily minimum occurs generally in night, the maximum at p. m. The monthly mean of the daily minima and maxima added and divided by two, gives quite a reliable mean of the monthly temperature.

THERMOMETER, FAHRENHEIT—NOV., 1882.

Day of Month.	Minimum.	Maximum.	Day of Month	Minimum.	Maximum
1	58.0	64.0	18	37.0	43.0
2	49.0	58.0	19	37.0	45.5
3	50.5	59.5	20	36.0	46 5
4	50.0	64.0	21	32.0	49.0
5	51.0	67.0	22	36.0	55.0
6	46.0	68.0	23	37.0	44.0
7	41.0	64.0	24	26.5	34.5
8	54.0	63.0	25	29.0	41.0
9	57.0	64.5	26	36.0	33.0
10	55.0	71.0	27	26.5	35.5
11	65.0	75.0	28	25.0	38.5
12	35.0	38.0	29	30.0	44.0
13	27.0	37.0	30	22.0	30.0
14	31.0	54.0	31		38.0
15	34.5	48.5			
16	42.0	49.0	Means	39.7	50.1
17	40 0	41.5	Monthly Mean.	44.9	

Quantity of rain and snow, 3.10 inches.

MORTALITY REPORT.---CITY OF ST. LOUIS.

FROM NOV. 4, 1882, TO NOV. 25, 1882, INCLUSIVE.

Small Pox..... 0	Childbirth..... 0	Convulsions & Trismus Neonatorum 28	Syphilis..... 1
Scarlatina..... 33	Inanition, Want of Breast Milk, etc. 12	Hydrocephalus and Tub. Meningitis. 2	Apoplexy 11
Pyæmia & Septicæ 5	Alcoholism.. 4	Meningitis & Encephalitis 10	Dis. fem. gen. org. 2
Erysipelas 2	Rheumat'm & Gout 2	Other Diseases of the Brain and Nervous System30	Surgical Operation 0
Diphtheria 90	Cancer and Malignant Tumor.... 4	Cirrhosis of Liver and Hepatitis.. 13	Deaths by Suicide 2
Membran's Croup.17	Phthisis & Tuberculosis, Pulmon 53	Enteritis, Gastro-Enteritis, Peritonit, and Gastritis' 20	Deaths by Accid't 20
Whooping Cough. 3	Bronchitis.. 11	Bright's Disease and Nephritis...14	Deaths by Homicid 2
Still-born.....—	Senility 11	Other Diseases of Urin ary Organs. 1	Congen Defor'ty 26
Measles 2	Pneumonia..... 34	Dis. locom Organs 1	Total Deaths from all Causes.... 747
Typhoid Fever....16	Heart Diseases.... 18		Total Zymotic Diseases 290
Cerebro Spinal Fev 3	Other Diseases of Respir'y Organs.16		Total Constitutional Diseases..... 87
Remittent, Intermittent, Typho-Malarial, Congestive & Simple Contin'd Fevers,27	Dis. Integ..... 0		Total Local Diseases 212
Puerperal Fevers.. 6	Marasmus — Tabes Mesenterica and Scrofula. 24		Total Develop'tal Diseases ... 37
Diarrhœal Diseas 25	Other Const. Dis. 2		Deaths by Viol'ce24
Other Zymotic Diseases 2			Unknown 0

CHAS. W. FRANCIS. *Health Commissioner.*

Original Contributions.

ARTICLE XIV.

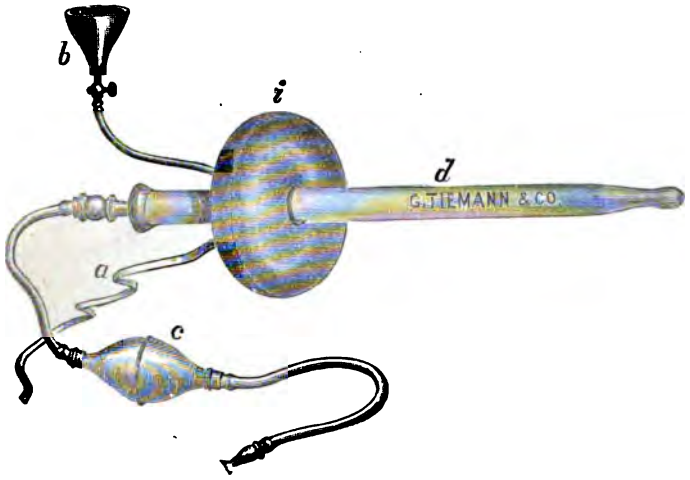
A RECTAL OBTURATOR.* By DAVID PRINCE, M. D., of Jacksonville, Ill.

The basis of the following communication as presented to the St. Louis Medical Society, Nov. 18, 1882, exhibiting a rectal stopper or obturator.

(1.) For enabling the alimentary canal to hold two or three gallons of water in cases of obstinate constipation, in cases of obstipation and of strangulation; or, for the speedy and complete washing out of the alimentary canal on any account.

(2.) For the holding in the alimentary canal of comparatively large amounts of nutritious fluids in cases in which the introduction of food by the mouth is impracticable.

Fig. 1.



Anal or rectal obturator or stopper in position upon a Wales' bougie.

(*a.*) Tape attached to obturator for withdrawing it after its collapse. The tape or thread may also be passed through the central opening and around over the circumference, and then be tied so as not to be lost.

*Read before the St. Louis Medical Society, Nov. 18, 1882.

(*b.*) Funnel attached to the pipe, arranged for filling the obturator. This can be replaced by a syringe. In using a syringe the amount of water (measured by the bulb of the syringe) necessary to fill the obturator, should be previously ascertained, in order not to run the risk of hurting the obturator by over pressure.

(*c.*) Syringe for injecting fluids into the rectum.

(*d.*) Wales' bougie.

(*i.*) The obstructor expanded with water. This, in the collapsed state, should be placed just within the anus. A piece of dentist's elastic rubber dam slipped upon the bougie down to the position of the obturator facilitates its entrance through the anus. The greater approach to a wedge-shape enables the obturator to pass the sphincter more easily.

(3.) For the holding in the large intestine of an adequate quantity of alcoholic liquids introduced for anesthesia in surgical operations, or injuries, or for the alleviation of shock or terror from any cause or in all conditions in which alcoholic esthesia is desirable.

(4.) For the speedy dilution of the blood through the absorption of water from the intestinal surfaces in order to stimulate the kidneys to filter out any poisonous constituents of the blood, whether these impurities have been introduced by accident or design, or whether they have been developed in the blood and in the glands by the chemical process incident to disease.

(5.) For the reduction of temperature in fever and inflammation by the more ready discharge, through the various emunctories, of irritating material by the thinning of the blood through the introduction of water.

I have taken great interest in the efforts of Dr. Wales, Surgeon General of the United States Navy, to construct a bougie by which the large intestine can be well distended in cases of intestinal obstruction; and in some cases of obstruction I have been unexpectededly successful in securing a movement of the bowels by an introduction of the bougie high up. This is a specimen of Wale's bougie [showing the bougie]; but, manage it as you may, the water is likely to leak out and the full extent of the desirable result may not be obtained. Reflecting upon this subject, it seemed to me that if there were an obstructor fitting inside the spincter it would effectually prevent the regurgitation of the water used, so that the large intestine would be completely filled, and, in case of having it very tight, fitting the ileo-cecal valve within the small intestine. I wrote to Mr. Stollman, of Tiedeman & Co., telling them what I wanted and

a few days ago I received this. This is to be filled with air (referring to the obturator) or water, and is intended to be of such a size as to fill the lower part of the anus and act as a valve, so that the greater the pressure is above, the tighter it will fit. In using this, according to this idea, in should be placed upon the bougie previous to its introduction. The bougie is then worked up as far as convenient and the obturator pushed in through the spincter, and after being inside the spincter it should be injected with warm water or blown up with air. It is probably better to use water because it is not so likely to leak away as air; you then fasten to the tube some kind of syringe and fill the large intestine. The practicability of securing a disentanglement of a strangulated intestine, the obstruction being occacioned by a loop of intestine caught under a bridge, which may be the result of a previous inflammation, or occasioned by intussusception, in which the upper portion of the intestine is drawn into the lower—the practicability of this has been established by many successes. Where the obstruction is below the ileo-cecal valve, there can be no doubt of the ability, with the obturator, to fill the large intestine below the obstruction and exert an influence to disentangle it. It is not to be supposed that all the attempts will be successful, for there may be such adhesions as to make it impracticable, as in the case of strangulation, in hernia in the inguinal canal or under the femoral arch. The expedent might be supposed to fail in cases of strangulation of the small intestine, on account of the tight fitting of the ileo-cecal valve, but the experiments made by Dr. Robert Battey upon the dead subject, prove that the ileo-cecal valve yields when the pressure becomes more than moderate.

In reference to the employment of gas for removing intestinal obstructions, Dr. Austin Flint is quoted by Dr. Batley as saying: "I have known rupture to occur from the injection successfully of an acid and of alkeline fluid giving rise to the evolution of gas in the intestine. This method of employing pressure is highly objectionable because the amount of pressure cannot be regulated."

Under the head of Water injection, Dr. Robert Battey, of Rome, Ga., published in the *Atlanta Medical and Surgical Journal* in June, 1874, an account of a case in which water injected by the anus with an ordinary syringe passed into the stomach and was vomited.

It had been supposed that the cases in which the feces passed form the colon through the ileo-cecal valve and were vomited, were exceptional cases, but Battey quotes from Gray's Anatomy, the description of the valve, from which it is shown that, "when the cœcum is distended, the margins of the opening approximated so as to prevent any reflex into the ileum."

"But" says Dr. Battey, "when the force is increased until the degree of complete circulation has been reached, another mechanical effect begins to show itself, viz.: elongation of the intestine by a downward movement of the cœcum before the advancing column of liquid. In this elongation of the tube, the force exerted upon the ileo-cecal valve is in the longitudinal direction of the intestine and hence transverse to the the direction of the folds by which the latter are separated from each other." * * * "The elongation of the intestine stretches the longitudinal muscular fibres and produces the effect described by Gray, as following the division of those fibres, viz.: a funnel-shaped opening."

In the *Georgia Medical Companion* for Aug., 1881, Dr. Battey said, "distensive enemata can scarcely be overestimated when judiciously and at the same time boldly employed for the removal of intestinal obstructions." Cases are reported in the same journal of the year from Dr. Battey's article in the *Atlanta Medical and Surgical Journal*, Jan., 1874, and in the *Medical and Surgical Reporter* for March 7, 1874, it is asserted upon the authority of Dr. Milbrand that a gallon and a half of water may be injected by placing the patient upon his elbows and knees with the remark that these injections are useful in cases of fecel accumulations, intussusceptios lesions of the ileo-cecal valve, etc.

In the *Medical Record*, July 1, 1874, Gaston Simon has demonstrated the possibility of making fluid pass the whole length of the large intestine, water injected by the anus appeared at a fistulous opening in five minutes.

Alfred Heges used a funnel and long pipe injecting five pints of water before the anus was forced to yield.

On the 9th of March, 1872, Dr. Battey was called in consultation to see Mrs. S., to establish a differential diagnosis between carcinoma of the stomach and intestinal obstruction.

Pressure was made upon the anus by means of a napkin and twenty pints of water with soap and turpentine were passed into the rectum when the patient said, "Doctor, I taste your soap in

my mouth." Dr. Battey quotes several cases of a similar character occurring under the observation of the practitioner.

HERNIA.

On Sept. 4th, 1873, Dr. W. L. Silmain, of Texas Valley, Ga., relieved a case of strangulated hernia of four days' duration, by the injection of a large quantity of tepid water until copious vomiting occurred; the patient being under the influence of chloroform.*

A CASE OF OBSTINATE CONSTIPATION WITH VOMITING OF SOLID FOOD 24, 48 OR 36 HOURS AFTER EATING AND YET WITH OCCASIONAL REGULAR FECEL EVACUATIONS.

Mrs. G., aged sixty-two years, having had general good health until within the last six months, has become gradually dispeptic, with constipation. During the last three months she has been able to eat very little and sometimes she has vomited solid food thirty-six hours after eating it. The vomiting material have exhibited a sour taste.

She is thin and on examination, some movable hard irregular bodies were felt in the abdomen suspected to the indurations within the omentum. It was suspected that there existed occlusion of the small intestine from some growth pressure and said by the patient to be movable. These supposed tumors were tender and cathartics have for some time failed to move the bowels, though she has had small fecal evacuations at irregular intervals.

Dec. 15, 3 P. M. A Wales' bougie was introduced 8 inches with the rectal obturator and and 2½ gallons (9½ litres) of warm water injected slowly. At the close of the injection she vomited freely, throwing up some beef which she had taken thirty-six hours before. About 2 quarts (1.88 litres) of liquid were thrown up, on accouut of which we supposed that we had filled the intestinal canal and that the water injected came to be vomited.

After the withdrawal of the bougie and the obturator, there was first a free discharge of water, and then fifteen large hard fecel masses. A sense of general comfort followed these evacuations.

Dec. 15, 9:30 P. M. One-third of an ounce of beef (1.09 grams) was prepared according to the Garfield formula and water

*Dr. Battey's article in the *Atlanta Medical and Surgical Journal*, for June, 1874.

added, making 20 ounces (600 c. c.) Enough leaked in the process of injection to wet a small sized towel; by subsequent experiment this is estimated to be 100 c. c. The power of the stomach was so far restored that it was not necessary to continue the rectal feeding.

Dec. 20. Vomiting had occurred in the morning and the sour stomach had returned. There was a small fecel evacuation yesterday. Two gallons of water was injected by the anus and as the last portion of it was passing in by the anus, a quart was vomited, with much grumous material and a sour smell with fragments of partially digested food. A considerable quantity of soft cylindrical feces passed away with the water but no scibulous masses. It appears from this and from the first injection that 2 gallons is the capacity of the alimentary canal of this patient (7680 cubic centimetres).

A copious evacuation of urine followed the discharge by the bowels. She stated that the amount of urine had been small and she was surprized that she should then pass so much water from the bladder.

The disease, however, which is probably carcinomatous, is pursuing its course and will terminate fatally.

With the theory that the ileo-cecal valve is water tight under the pressure of such an injection as it is practicable to make, it may be important to know whether an existing obstruction is above or below the valve. Whenever stercoraceous matter is vomited, it is certain that the obstruction is in the large intestine. With the belief, however, that the valve can be forced by an injection of water retained by the stopper in all cases in which the valve can be reached by the water, the question of the location of the obstruction has no practical importance.

It being, however, that an average alimentary canal holds between 2 and 3 gallons of water (7½ 11¼ litres). The amount of water which can be received by a moderate force will be some indication of the location of the obstruction. It must he made emphatic, that the introduction of water should be slow and should be suspended when greater force is required to work the syringe. The exact force employed may be known by employing a tube and funnel instead of a syringe.

It may be supposed that in an arrest of the progress of the intestinal contents by a circumscribed inflammation involving the muscular tissue, the injection of water from below may

establish communication between the intestines below and above the inflamed spot, and thus prevent that imagination which might demand to be removed by the same means. In the event of failure in the treatment, the patient has not been subjected to a measure dangerous in itself. In addition to the employment of injections of water in large quantity as cases of complete obstruction, it is suggested that the same agency may be brought in requisition in those cases of constipation in which fecal masses become lodged in the pouches of the colon without amounting to complete obstruction. The expansion of these pouches permit the dormant masses to float out from their resting places. The only other means of accomplishing this is by the use of cathartics which cause free transudation of liquid from the mucous membrane of the colon into its cavity. This requires several hours and is a process of great discomfort to the patient. Besides, the dislodgement by means of cathartics is not sure to be perfect. There can be no such distention of the colon and its pouches by means of a cathartic, as is practicable by the use of the rectal stopper.

With the injection held for a few minutes by the obturator, the intestine cannot fail to be distended while the fecal ball becomes surrounded and dislodged by floating in the water of the injection.

This is a process, although free from irritation, except that which occurs in passing the instrument through the sphincter and if any nausea occurs from the pressure of water in the intestine, it is over in a few minutes with the disappearance of the water and the consequent distention.

NUTRITION.

Again, with regard to the use of such an obturator for the purposes of nutrition through the large intestine, Dr. Flint, in his great work on physiology, states that the intestines are entirely incapable of digestion and consequently it is futile to attempt to nourish the patient by nutritious injections and right after this, at the bottom of the page he gives a note quoting several cases published in medical journals, in which patients were nourished in that way and whose lives were prolonged for a considerable period by nutritions injections in cases in which there was occlusion of the œsophagus, or some disease of the stomach which prevented the nourishment through the ordinary

channels. It occurred to me to suggest some means of retaining the injection and by diluting it and introducing it in such quantities as to get it high up and thus increase the capability of nourishment in this way. Our greatest difficulty in attempting to nourish a patient per rectum is the small quantity that we get retained and the uncertainty of retention at all times. It seems to me that by using an obturator such as this, we can introduce nutritious substances in such quantities and to such a height as to favor absorption very greatly.

With a closure of the anus, the albumenoid and peptonized liquids, may be introduced in greater quantity or in greater dilution favoring the absorption of a larger amount through a more extended surface of mucous membrane. It may be supposed that the surface of the lower end of the rectum will become accustomed to the pressure of the obturator so as to cease to be a source of irritation, as is the case with other parts repeatedly subjected to the pressure of unnatural contact. As the whole large intestine presents an absorbing surface, it seems that there must be an advantage in utilizing as much of its surface as possible.

Dr. D. W. Bliss, in an article in the New York *Medical Record*, July 15, 1882, and in a pamphlet copy of the same, gives a history of rectal feeding and refers to cases, among which was the distinguished President Garfield. The President's life is supposed to have been prolonged many weeks through the nutrition received in this way.

The following formula was followed for making *Beef Extract*:

Infuse ½ pound (150 grams) of fresh beef in 14 ounces (420 c. c.) of cold soft water with 4 or 5 drops of muriatic acid and 16 grains (1 gram) of chlorid soda. After digesting an hour and a quarter in soft water not above 100° Fahr., strain through a sieve and wash the residue with 5 ounces (150 c. c.) of cold water, pressing out the soluble matter. The albumen is said to be 2 ounces (60 c. c.) Beef Extracts, 2 drops (8 c. c.) of Beef Peptonoids,* 5 drachms (20 c. c.) of whiskey were given every four hours. This was generally retained without discomfort.

*A manufactured article with pancreatic and peptic elements in it. That employed in President Garfield's case was manufactured by Reed & Carnrick.

ALCOHOL.

Again, we can use such an instrument for aiding in the alcoholizing of a patient who has been the recipient of a severe injury, or in connection with a surgical operation of such magnitude as to cause severe shock. Dr. Linck, of Terre Haute, has been for several years making observations upon the influence of alcohol as a preventative to shock and as a means of anesthesia. He has pursued these investigations with a great deal of enthusiasm and his observations number several hundred, in which the patient has been thoroughly alcoholized previous to going into the operation. He found by these investigations that it took from three-quarters of an hour to an hour and a half to get the patient thoroughly drunk. He begins by giving 64 c. c. or 2 f. ounce and after that a teaspoonful of whiskey every five minutes to the patient who is to be subjected to the operation and if the patient evinces a disposition to vomit he gives less, or gives it less frequently; he gives it until the patient is thoroughly alcoholized. About 250 c. c. or 8 f. ounces is the average amount required, but with the public sentiment that prevails, it may be very offensive to some patients to be made drunk in that way; but if we have the means of introducing alcohal after the patient has been etherized or chloroformed, we may avoid that abjection, and we may occupy less time in the preparation and we may secure the presence of the agent in a situation which is less likely to cause irritation than by introducing it into the stomach.

It seems that the effect of chloroform or ether is to turn the stomach inside out. The large intestine is not acted upon in any way whatever. There is no disposition to diarrhœa, analogous to the vomiting which is often the result of the inhalation of ether, chloroform and some other anesthetics. If we can retain in the large intestine, alcohol enough to secure a thorough anesthesia, we may probably render the patient less liable to come under shock, and if after a severe injury, or during a severe operation, we have an agent that will prevent or alleviate shock, we have a disovery of immense value and a desideratum long sought after. The introduction of Wales' bougie for this purpose, carrying the alcoholic liquor high up in the intestinal canal, accomplishes it to a considerable extent; but we cannot be sure but that a considersble amount of the liquor may leak out and we cannot tell how much the patient retains; but with such an

obturator as I have exhibited, it seems to me that we have this matter under entire control.

From the observations of Dr. Linck and my own in the use of alcohol as a preliminary to severe operations, I think we have an agent which will secure to a very great extent, exemption from what every surgeon fears—that is shock. I think the alcohol has the best effect when used in not more than ten per cent. if we have the means of holding it in the intestine. The other day I had occasion to remove a tumor of considerable size, and I used this same oburator and injected three ounces of alcohol, about 85 per cent. alcohol and three ounces of water; but this was too strong and after the patient came out of the state of anesthesia there was pain in the bowels and bloody discharge, showing that the alcohol had been used too strong; there were no further evil effects, however, and the irritation passed off in a few hours; so I judge from this experience that it is better to have the liquor very much diluted, and I would state as a suggestion, that the patient have a cathartic previous to the operation and be instructed not to drink any water or any other liquid for several hours, in order that the blood may be dry and ready to drink from the large intestine. In this way the alcohol will be absorbed along with the water with entire exemption from irritation of the mucous membrane of the large intestine and the patient becomes thoroughly influenced by the alcohol. The anti-shock properties of alcohol are pretty well proved by the immunity with which drunken people endure all kinds of exposure. The capillaries are kept well dilated and the reflex action are reduced to their minimum of activity.

Miss Burris, aged about 20, about to have a forcible extension and flexion of her knee joint (flexed from chronic inflammation). Repeated forcible extensions under chloroform and ether, having been priviously practiced. Her outcries have been very loud and troublesome on the disappearance of anesthesia in former experiences. Began the usual course of anesthetization at 3 P. M. In about twelve minutes the stupor was such that 100 c. c. of alcohol in 900 c. c. of warm water were injected. In half an hour the operative proceedures were completed. Temperature in the axilla 99°, pulse 60, respiration 16. One hour, or 4 P. M., 93°.5. 6 P. M. or three hours, 96°, pulse 96, respiration 18 and stupor attended by moaning and some movement of the arms. At 8 P. M. or five hours from the time of the injection the tem-

perature had risen 99°. Pulse and breathing normal but not counted. Much pain is complained of in the knee and two hypodermic injections of morphia have been made.

D. H., about to undergo an operation for the closure of a cleft on the hard palate (congenital, the soft palate having been closed by a previous operation) was put through the usual course of vapor of nitrite of amyl, till the face is red; then chloroform till the hand will drop, and then ether; at the time of complete etherization the temperature in the axilla was 97°.5 F. At this stage 120 cubic centimetres of 85 per cent. of alcohol was given by the anus with nine times as much water, or 1080 c. c. About an hour after the injection was made, the tube and stopper were removed, when it was found that there was no leak. At this time the alcoholic intoxication was complete with a pulse of 108, respiration 26 and a temperature of 95°.5 in the axilla and 96°.75 in the rectum. The extremities at this time, gave to the touch a sense of natural warmth. Four hours after the injection the pulse was 84, respiration 18, temperature 101°, the reaction being in excess.

In operations upon the mouth there is a great convenience in the employment of alcohol for anesthesia. Its effects last a long time and the operation can go on in the mouth without much interruption.

E. K., aged 20, about to undergo an amputation on account of a scrofulous inflammation of the tarsus of the left side, suppurating in different directions, with habitual high temperature. Temperature at noon, 100°.6 in the mouth. At 4:15, under chloroform, axilla 101°; rectum 102°.8. Under alcohol 120 c. c. (4 f. ounces) injected by the anus at the time of the preceding observation.

3:20	o'clock,	axilla	101°.4
3:45	"	"	100°.5
4:05	"	"	98°.5
4:40	"	"	97°.6, rectum 98°.8
6:45	"	"	96°.6

No more observations taken. Next morning by the mouth, 100°. The temperature of the patient has been high for several weeks; higher when new formation of pus have been taking place and lower on the lancing and evacuation of the accumulation. It will be seen that the fall of temperature observed in the axilla was 4°.4 from the temperature before the beginning of

anesthetization and 4°.8 below the temperature, under the stimulus of chloroform. The stimulus from the first stage of alcoholic intoxication was probably neutralized in part by coinciding with the period of depression from chloroform. The duration of sleep from alcohol was between three and four hours after which ¼ grain of morphia (.016) given by hypodermic injection sufficed for the night.

It appears from observation that the depression from alcohol, descends to 97° or 96° while the depression from ether and chloroform is not over one or two degrees for short periods. How much the depression is for long periods of anesthesia by these agents has not been sufficiently observed. The great depression from alcohol is not, however, attended with apparent coldness.

CASE.—Miss A. P., aged 23, with chronic synovitis of the the knee joint, has been frequently anesthetized by chloroform and ether and has often manifested hysterial catalipsy and convulsions following the anesthesia. She is subject to them from any depression of health.

Jan. 2nd, 1883, in a state of threatened attack, chloroform was given, followed by ether at 10 A. M.; at 10:15 temperature 99° in axilla. 100 c. c. of alcohol was injected by the anus. At 10:30 pulse 120, respiration 18, temperature 98°; the breathing is in a moaning manner. At 11:40 pulse 108, breathing 28, temperature 96°.5 At 4:45 temperature had risen to 99°. Next day pulse 100, breathing 34, temperature 98°.5. The observations were all made in the axilla. This case exhibits a depression of temperature, an hour and a quarter after the injection, of 2°; and 2°.5 below the point of elevation of temperature when fifteen minutes under ether. On recovering from the prolonged alcoholic anesthesia, there was strabismus, threatening a convulsive attack. Several drinks of two f. ounces (60 c. c.) of whiskey each, carried her through without an attack of convulsions.

The rectal stopper may also be made available in the use of erysipelas and septicæmia, when the stomach will not tolerate an adequate amount of liquid. This agent may be employed for its known antiseptic power and for its capability of reducing the temperature of the body. The temperature becomes high it septic conditions of the blood and it may be supposed that alcohol tends to destroy or repress the septic agent and at the same time to retard the chemical action upon what must be supposed to produce the high temperature.

In the *Philadelphia Medical News* for December 23, 1882, page 703, Dr. J. M. Keating commends a full alcoholic treatment in measles and in diphtheria:

"We examined the blood and determined the number of micrococci present; the child was then placed upon full doses of whiskey and an examination of the blood showed that the number of micrococci had greatly decreased and that they seemed paralyzed in their development. They did not have that tendency to duplication which they had before shown."

When this kind of medication is thought to be indicated and there is any difficulty in taking the medicine by the mouth or of retaining in on the stomach, the anus affords an avenue and the obturator a means of retaining it.

POISONS IN THE BLOOD; DIURESIS AND DIAPHORSIS.

Another use for the anal obturator is the retention of water injected for the purpose of the removal of poison from the system through the increased action of the kidneys. It is known that the introduction of a large quantity of water into the circulation increases the amount of water transuded through the kidneys, thus forming the escape through these organs, of any material of a perniceous nature held in solution in the blood.

In Mrs. Grigg's case, related under the head of obstinate constipation, in which two gallons of water were injected for obstinate constpation, the amount of urine passed some time afterward, was largely increased.

The old masters in medicine sought to accomplish this dilution of the blood by very dilute infusions and decoctions, but the concentration of medical substances, by the art of chemistry, has made it necessary to study other means by which to dilute the blood and thus favor the action of the kidneys.

The following illustration of the *treatment* of carbolic acid poisoning by the introduction of a large quantity of water, is taken from the *Revue de Medicine* (Paris), for September, 1882, reported by M. Springer, hospital enterne:

In the Larisboiiére Hospital two patients in the service of Prof. Bouchard, sick with typhoid fever, were ordered each an injection to contain 48 centigrams or 6 grains of carbolic acid. Instead of this, each patient received an injection containing 48 grams or a troy ounce and a half. Very soon, in both cases, a violent pain was felt in the abdomen and in twenty minutes both

patients were in a profound coma with sterlosous breathing. Large injections of water and glycerine were attempted and they were immediately expelled. An hour and a half after the injection the temperature of one was 36° Cent. or 96°.8 Fahr., of the other 37° Cent. or 98°.6 Fahr. The pulse of one was 104, irregular but strong; of the other irregular but feeble, remaining sometimes three or four seconds imperceptible; respiration 54, the body covered with perspiration. Both were in a profound collapse. Two hours after the injection it was attempted to make the patient drink water in order to form the secretion of urine, by which to secure the elimination of the carbolic acid. This was found impossible and recourse was had to the introduction of a rubber tube down the œsophagus through which a litre (2.116 pints) of water was introduced. In half an hour, or two and a half hours from the beginning, the subcutaneous injection of ether was practiced. Immediately afterward a reaction was manifest and both patients opened their eyes and made movements. They complained of no pain and pressure upon the abdomen was without pain. They were exhausted and without recollection of what had passed. At the fifth hour the temperature of one was 36°C. or 96°.8 F.; of the other 36°.18 C. or 97.24 F. Five hours later the temperature of one was 38°.7 C. or 101°.66 F.; of the other 41°.8 C. or 106°.24 F. There was great sleepiness without pain in the head or abdomen. Both had chills with vomiting soon afterward, from which there was a good reaction,

Black coffee was given them. On the next day the temperature of one being 37°.2 C. or 98°.96 F.; of the other 38° or 100°.4 F. The urine was at this time normal in quantity, showing a dark color with albumen, which had not been present before the accident. Per chloride of iron showed the presence of carbolic acid. On the third day the patients presented nothing peculiar and the disease pursued its regular course to convalescence. The lowest temperature was 35°.7 C. or 96°.26 F. and 36° C. or 96°.8 F.; the highest 41°.3 C. or 106°.6 F., and 41°.8 C.or 106°.34 F., a difference of about 5. C. or 9° F., after which an equilibrium of temperature was reached.

"A point of interest is the rapid absorption through the mucous membrane of the large intestine. It is impossible to estimate exactly the amount of carbolic acid absorbed since large injections were given half an hour after the accident. Coma

was produced in twenty minutes from the time of the introduction of the carbolic acid. We see from this that intestinal absorption is very rapid."

"The poisonous effects were manifested in the form of collapse, which lasted four hours, accompanied by failure of the circulation with feeble, irregular and compressible pulse. The respiration was short and accelerated with profuse sweating and no urine was secreted. Upon this question it may be proper to refer to the *American Practitioner* for Dec., 1882, page 359, where there is an extract from a paper upon cardiac, hepatic and renal dropsy, read before the British Medical Association, by Dr. D. J. Leach, of Manchester. After referring to the advice of Dr. Cheedle, to withhold water in order to dry up the sources of water, he says, "The free administration of liquids has been tried with the idea that the flush of water through the kidneys might clear the renal tubules."

"That the increased digestion of water might, by increasing the vascular pressure, originate a diuresis. Dr. Dickinson, in 1864, advocated this plan in the treatment of nephritis in children and Bonchœdaur and Dujardin Beaumetz value highly the use of water and milk in cardiac dropsy. I think I have seen increased injection of fluid of service in ascites dependent on cirrhose, as well as in cardiac and renal dropsy."

DIURESIS AND DIAPHORESIS.

The employment of alcohol introduced into the rectum for the reduction of temperature has already been referred to in Section III.

The employment of water absorbed from the large intestines with this purpose, is a hint from what comes under everyone's observation. It very often happens that a high fever subsides with the diuresis and diaphoresis immediately following the drinking, of large drafts of simple water or of water in the form of teas. For this end, however, the mouth being a tasting organ, and the stomach sensitive to the presence of to what there is no relish for, it is almost indispensable that the desire of the patient should coincide with the administration of liquids in any considerable quantity. By the rectum, however, the demand of nature can be anticipated before it is interpreted and manifested by the gastric sense.

Among the applications of the rectal obturator may be the retention of feces, in cases of paralysis of the spincter or insufficiency of it through disease, accident or a surgical operation. The same principle may be displayed in cases of perforation of the stomach, made by accident or design. The stopper being placed on the inside, it can be not expelled in retching and the tube passing through it may serve for feeding without displacing the obturator. An artificial or adventitious anus may be managed in this way in cases in which the opening is considerably smaller than the size of the canal within.

Other applications of this *principle* of the rectal stopper will be developed by reflection and experience.

The therapeutics in this line are yet to be worked out by obserations.

Article XV.

Doubts in Regard to the Voluntary Motions of the Child in Utero. By E. Benkendorf, M. D., St. Louis.

IV.

The Child Immediately after its Birth.

[concluded.]

As soon as the chest of the child has come in contact with the outside world we hear the child cry, and this results from the simultaneous functional actions of the muscles concerned in respiration and the inflation of the lungs with air. The priority of one of those elements in the process of respiration must belong to the function developed in the respiratory muscles, to-wit: those of the face, neck and chest, and it may be that the first motive power manifests itself in some one muscle of the face whereby motion is communicated to the rest. Even to induce artificial respiration we are obliged to address ourselves to the respiratory muscles and, artificially forcing air into the lungs, can only have the desired effect if the volume of air be large enough, by its mechanical pressure, to call the respiratory muscles into play. If the mere admission of air be only necessary to restore an apparently suffocated person, we shall have found that the respiratory muscles were sufficiently active, and that the cyanotic condition needs but be removed in order to enable the brain to continue the innervation of the nerves supplying the respiratory muscles. In fact, every method of artificial respiration must base its success on a still existing motion of the respiratory muscles, without which all efforts at re-animation would be in vain. The only possibility of calling these muscles into action when there was no previously existing motion in them, this takes place only once in our lives and that at the beginning of extra-uterine existance. The cause of this must not be sought for in the physiological functions of our anatomical structures, answering to physical impressions, but in *the memory of the soul* which at the moment of the child's entrance into this hos-

tile world, remembers the *breathing of its parents* and thereby incites the cerebral ganglia to impart their motor influence to the respiratory muscles

Entrance of air into the lungs is the simultaneous consequence and after that the breathing process has been set into operation, all the other sets of muscles of the body are one after the other put into action. Extra-uterine life has become complete. Mechanical and physiological processes unite and the child can defend its independent existance. * * * * * *

This is not the place to inquire why the soul's filial memory does not come to our aid in after life when accidents or disease have deprived us of respiration. We know that such is not the case, and from experience we are enabled to say that non-interference in after life is the rule. At that time complete arrest of respiration results in death, for without respiration life can exist in utero, but not out of it because it needs motion when outside of the womb. We of course do not refer to extra-uterine pregnacy when speaking of "outside the womb" and we mean to say that voluntary motion inside the womb would be as injurious as want of motion outside the womb would be to the life of the human being.

A medical man writing on a medical subject has nothing to do with psychiological explanations in any way, more than is necessary for the elucidation of the medical subject. Therefore it would be idle to speculate on the soul's power of introducing the first act of respiration at birth, and on its want of power to re-establish it during life. Even knowing that the soul, during our lifetime, establishes a remembrance of all bodily processes and sensual impressions on the cerebral ganglia of the body, in which the soul is residiug while on earth, it would not follow from this that the soul must comtinue to cherish the remembrance of lessons learned whilst existing in a former resident state. It seems to be destined to have such remembrance only for the purpose of commencing its co-existence with the body for porforming new duties and we shall therefore perceive that after this first act in extra-uterine life the soul is found busy to record the experiences it has to make in its new condition.

Whatever interests us, however, most at present and what we most intended to prove, is *that the first voluntary motion of the child is established not in utero, but after birth or, if we like better, at the moment of its entrance into the outside world*, and that this mo-

tion is called into existence by the child itself giving the impulse of motion to its own organization. This organization was formed whilst the child resided in utero and there its cerebral ganglia were developed into such condition as te be able to be influenced by the soul when outside of the uterus.

The cerebral ganglia cannot enforce motion unless they are influenced by outside impressiens or by outside impressions havsng been stored up in the soul. This holds good in our independent condition as a link in the chain of nature. But as long as the human being is within its mother, it is *not* dependent on *its own will* or on that of *the mother*, but it is subject to the laws controlling generation, nutrition and development of *structure*.

RECAPITULATION.—1. The child does not breathe whilst it is in utero and therefore has no muscular motion.

2. The child in utero develops its organic structure, and does not perform such physiological functions as constitute animal life.

3. At some time during gestation the womb develops its physiological functions of moving the child. This movement is different from uterine contractions called labor pains.

4. The death of a child in utero suspends the womb's power of moving the child but not the power of producing labor pains.

5. The child is also passive during the act of parturition and is born motionless.

6. At the movement which completes birth the child breathes and moves.

7. The act of respiration is established by incitement of the cerebral and thoracic ganglia, calling and keeping the respiratory muscles into action.

8. The incitement of the nervous ganglia to produce the first impulse of the child's motion, is not owing to reflex action produced on the child by surrounding elements, although they will continue the motion after it has been called into life.

9. The incitement of motion proceeds from the *child's soul* remembering the breathing of its parents.

10. The child's soul has no other remembrance and loses this remembrance by utilizing it and incorporating it into individual life.

11. The soul having by this act forgotten its parents, becomes

an individual soul and grows by absorbing within its consciousness the physical and mental processes of the body.

12. The resemblance of the child to its parents consists in its anatomical resemblance, and if this anatomical structure is reacted upon by similar circumstances as acted upon the parents, there may result physical and mental processes resembling those of the parents. Imitating the parents and thereby producing physical and mental resemblances to the parents, must be counted among the processes which are similar to processes having been enacted by the parents.

13. The soul of the individual having reflected upon itself these processes may therefore grow to resemble its parents. But without the individual's experience and training of such processes as took place in the parent, the individual soul cannot resemble that of its parents.

Clinical Lecture.

Article XVI.

A Clinical Lecture on Fracture of the Femur. By Edw. Borck., M. D., Prof. of Surgical Diseases of Children, and Clinical Surgery, College for Medical Practitioners of St. Louis, Mo.

To-day, gentlemen, we will take up fracture of the femur. The compound comminuted fracture deserves the most attention, I brought before you a lad who received, a few years ago, a severe fracture of this kind, being run over by a railroad train. It matters little how these injuries are produced, but the treatment matters a good deal. (*Here followed explanation of the case.*) You see he walks perfect now, notwithstanding the loss of one and a half inches of bone; you can notice hardly anything. If not positively necessary never amputate a child's limb, no matter how severe the injury; a secondary amputation does not hurt a child as much as an adult. (*Here description of fracture of the femnr.*) But I brought this little fellow more for the purpose of using him for a model to show you the application of splints. Lie down here upon this table, my boy, undress your legs.

This is the anterior suspension splint; (*description of the application was given*) if used for the lower extremity, one single rod may answer.

Here is the well known lateral suspension wire splint; if you think I will parade before you silver plated splints, you will be disappointed; the simplest and the cheapest kind I employ, for they are mostly poor people that sustain injuries, and cannot afford luxury, but they must answer the purpose. I make these splints myself. (*This is the manner in which they are applied.*)

There is no apparatus with which one can obtain a better continuous and equable extention than with this splint, and this is the main object. This splint is well adopted for fracture of the middle of the femur and for fracture of the leg. But let me call your attention to two points, for I have seen more than

once, this splint neatly applied and the two most important points neglected.

1st. Have your suspension rope at a remote point and elevate the foot of the bed like you see here.

2d. Always apply a foot piece, as you see I have done, thereby preventing outward rotation, and the production of Talipes equinus position, to which I called your attention in a previous lecture.

Now let me show you the application of the double inclined plane with the pillow and extention direct from the femur. (*Here the application and explanation followed. The reader is referred to Dr. Borck's monograph on Treatment of the Femur.*)

This I prefer specially in fracture in the lower fourth of the femur. This is not an invention of my own, it is a very old method; I prefer to use old and well adapted splints and learn to use them correctly, instead of wasting time to invent new ones that are no better, perhaps not as good. Neither have I a pet splint, good for all cases: I use different methods as they are adapted to the case. (*Here followed fracture of the femur in children and their treatment, also diagnosis and the differential diagnosis of intra and extra capsular fracture.*)

This latter may often be mistaken for dislocation and we may admit that the diagnosis is often very difficult. But with a little care we can always get aright; one should never be satisfied with the vague idea of luxation, but should ask himself the question upon a definite plan. Surely so much of the anatomical position of a joint as it is necessary to make a diagnosis, everyone can soon become acquainted with,(*here explanation and demonstrations were given.*) Remember that in fact there are but three dislocations: L. ischiadica, L. obturatoris, L. pubica; remember further, that in luxation, where the head of the femur is above the acetabelum, there must be shortening, and when the head is below, there nust be lengthening; look at the six drawings here, three give you the relations of the bones only, the other three the appearance of the whole limb, (*here followed the differential diagnosis.*)

The position of the limb is mostly our guide—well! let us take a case, let us suppose we see the injured one lie upon the floor, leg bent, adducted and inverted, rolling over toward the inside, then we have a picture with all the symptoms of a L. Ischiatica. But we do meet sometimes with fracture of the neck

of the femur, wtih precisely the same symptoms. (*Here followed how to distinguish one from another.*)

Now take another case: The injured one lies upon the floor, with outward rotation, actively unmovable leg, hip and knee joint stretched out, leg shortened—now these symptoms would indicate a L. Pnbica. But we can make our diagnosis at once, by feeling for the head of the femur upon the pubis. If for extravasation we cannot see him, if we do not find the head, it might be a supracantyloid L., which is seldom, the head then is under the superior spinenous of the ilium, if we do not feel the head there, exclude dislocation.

So much for fracture and dislocation of the femur. These plates and tables will assist you in your studies.

Here I show you a little contrivance for the cure of bow leg; you see this is a leather cap or short splint modeled to the limb, it must not be bent like the limb but must be straight, inside it is padded with chamois skin, outside are two eyes; this is a steele spring bent the reverse from the leg, has a hook of German silver attached, which fits into these eyes, and is also covered with chamois long enough to reach from the head of the tibia to the external malleolus; this is a twelve pound spring, that is, it carries that weight; the leather cap is bandaged to the point of the leg most prominent, then the spring is inserted; it is bandaged to the leg in this manner, you see the spring will make continuous traction. The stockings and the shoes can be worn over this, it is neat, does not show a clumsy apparatus, to which mothers make so many objections. This boy has worn these springs for six weeks and his legs are perfectly straight.

I shall now have the springs reduced in strength to six pounds weight and let him continue to wear them for some time.

It strikes me that instead of one spring of twelve pounds there may be three springs of four pounds each, like a half spring of a buggy, so that one could be removed at a time and the spring's strength reduced.

You will find upon the rostrum the name of the journals and the articles of two eastern surgeons describing similar methods. But gentlemen, never contend about priority, the same ideas, the same thoughts that run through our brain now, may run through the brain of another at the other side of the globe.

I'll tell you where I obtained the idea; about twenty years

ago, when I practiced in Maryland, I was called to Buck Valley, in Pennsylvania, to perform some operations. That part of the world is rather a poor country, the farmers make additional living by cutting hoop poles; and you know that when a doctor comes from a distance, the people in the neighborhood will all flock around to tell their ailments; so here a man brought a little girl about four years old with an elongated ulcer upon each of her legs, which had been there for some time and which he could not heal. Upon inquiry how this sore came there, he first hesitated a little and then he said, "Doctor, this child had crooked legs, I thought I could make them straight; I took a hoop pole, cut it flat, thinned it on the ends, put them pieces in water, fastened a string to each end and drawed them like a bow, and let them dry in the sun. I bound them to the girl's legs and let them stay there, only taking them off when they hurted too bad; you see the girl's legs are straight, but it made the skin raw and I put on rosen salve to heal the skin, it is getting worse all the time."

Instructing the old farmer, who could not read or write, what to do, the child's legs got well in time, and as she did not use them for some time, but staid in bed, the legs kept straight, and I learned something useful from the old Buck Valley farmer, but I never claimed the principle as my invention.

Translations.

Article XVII.

FROM THE SPANISH.

Treatment of Obstinate Cases of Malarial Fevers by Hypodermic Injections of the Bromo-hydrate of Quinine. [Translated from the *Unico Medico* for the Journal.] By Joseph Workman, M. D., of Toronto Canada.

In the October number, 1882, of the *Unico Medico* of Rio de Janiero, I have read with some interest a communication on the above subject, from the pen of Dr. A. T. Garcia, of the province of Barra de Piraky Brazil. I am not aware whether the treatment recommended by Dr. Garcia has been tried in this country, or indeed, whether it has been known to many of the profession, but feeling assured that in many localities of the Western and S. Western States of N. America, malarial fevers of similar type, and similar obstinacy, to those of S. America, must be encountered by practitioners. I would respectfully ask for so much space in the Medical and Surgical Journal, as may suffice for a summary of the leading facts given by Dr. Garcia, and I would venture to say, that if these are as deserving of professional deference, as his modesty is of general commendation, the time devoted by the readers to the perusal will not have been misspent.

Dr. G. informs us that he was first induced to the employment of bromo-hydrate of quinine in malarial fevers, by the strong commendation of his friend Dr. L. Filho, but he does not state that it was by his advice he adopted the hypodermic method of its administration.

He gives details of eight cases, all of which were certainly of a sufficiently obstinate character, and had proved unyielding to the usual modes of treatment.

Case 1st was that of a boy four years old, occurring in April, (the equivalent of our October,) the patient had been treated with large doses of sulphate of quinine, and also the valerianate, both separate and in conjunction without benefit. The liver and

spleen were enormously impacted, the conjunctive discolored, the skin yellow and dry; the lower extremities were beginning to swell.

Dr. G. began by an emetic, which produced copious vomiting. He then administered quinine (sulph.) freely, but finding no improvement in the symptoms, on a subsequent visit, when the temperature was 38.°5 C (101.3°F.), he injected into the right arm a decigram of the bromo hydrate of quinine. On the following day he found the patient completely apysetic, but a small abcess followed the injection at the point operated on; this was of short duration, and of little intensity. He now made a second, in the left arm, and ordered application of the tincture of iodine over both hypochondria. All the symptoms disappeared, but fearing a relapse, should the patient remain in the focus of the epidemic, Dr. G. had him removed to a healthy locality.

2d Case—was that of a brother of the preceding patient; it was a clearly characterized intermittent, of the gustidian type. On the fourth day a decigram of the bromo-hydrate was injected; in a few days the fever had disappeared, leaving, however, a splenic engorgement which yielded to appropriate treatment.

3d Case—was that of an adult gentleman. The form bilious was intermittent, which yielded in a few days to the ordinary treatment, but a relapse of pernicious character occurred during convalescense. It proved unyielding to the prior treatment. A decigram of the bromo-hydrate was injected into the arm, and this was repeated on the day following.

The improvement was immediate, put an extensive and strong erysipelas invaded the whole arm, which however, yielded to laudanumised cataplasim. It is unnecessary to proceed through the remaining five cases, which were similarly treated.

Dr. Garcia thinks that by the introduction of a drop of the Sydenham laudenum into each hypodermic injection, he averted the occurrence of subsequent inflammatory reaction, and though Gublet, Soulez, and some other physicians have asserted that they have never seen any irritation produced by this salt, in the cellular texture, even in 20 centigram quantities, he seems to doubt whether a like immunity might be general in Brazil. He tells us that his friend Dr. Filho says of four cases in which he injected 15 centigrams, two were followed by inflammatory symptoms of great intensity, but the other two showed no unpleasentness whatever. In his own eight cases, theer presented inflammatory reaction, two of which were sufficiently notable.

Proceedings of Medical Societies.

Article XVIII.

ST. LOUIS MEDICAL SOCIETY.

Taken by the Journal's Stenographic Reporter.

November, 11th, 1882.

Dr. Pollak: I have here a very interesting case. This man a hospital patient, and I requested him to come down this evening that I might exibit him to the society. This patient was going home from church some three weeks ago' when somebody knocked him down, striking him in the eye. He received the blow directly in his eye, he does not know whether it was with a foreign body or with the fist. He was instantly blinded. He came to the hospital about ten o'clock at night, and was sent to me. I found a large hemorrhage in the anterior chamber; it was absolutely filled with blood. Fortunately it was not coagulated, so that by placing him a little on one side the detached portion of the iris came in view. There was nothing to be seen otherwise; the whole fundus was very dark; There was no pain and no sight. I simply directed him to apply cold water. On Tuesday morning I saw him in the hospital again. The effusion of blood was considerable. I couldn't make out the fundis at all, it was absolutely dark. As the effusion of blood in the anterior chamber decreased, the fundus became clearer, so that I can make it out now. I dare say he will regain his sight if there is no detachment of the retina. I suppose that if the blow was strong enough to lacerate the iris it has probably ruptured some of the blood vessels between the retina and choroid, and it may have caused the detachment of the retina. If this is the case he will probably not recover his sight. If the retina is in good condition I do not see any reason why he should not recover his sight entirely, provided we can get the detached portion of the iris out of the way. The detached portion will be a source of irritation and great confusion as long as it remains. I want to get the advice of the occulists as to whether they think it well to perform itidectomy here or not. It will be necessary to dip in very deep with the forceps in order to reach it; you might not succeed so easily. There is nothing visible externally except the detachment of the outer margin—the peripheral margin of the iris. There was no other treatment except the applications of cold water and atropia. He never had a trace of pain.

I would like to have the president give his opinion as to whether it would be advisable to make iridectomy of the iris so as to remove the oscillating piece of the iris and in that way relieve the irritation and prevent confusion of sight.

Dr. DICKINSON: I incline to let it remain for the present, as it is possible that the oscillation of it may cease by its assuming, perhaps, a little more firmness and tone. It would not be a difficult matter to remove a portion of it by the introduction of a minute hook, engaging, withdrawing, and exercising it sufficiently. Vision is unquestionably very seriously affected up to this time. Whether there is any effusion between the vitreous and the retina is a very difficult matter now to ascertain, or whether there is any detachment of the retina. The removal of the lacerated portion might convert the two pupils into one and by the introeuction of light might give rise to troublesome photophobia. That ought to be taken into consideration: whether he would be benefitted by the removal of the detached portion of the iris, is questionable.

Dr. LUTZ: Allow me to ask you whether I understood you to say that this oscillating portion of the iris would eventually stop?

Dr. DICKINSON: It may possibly regain some of the tone by the contraction of adhesions so as to give a little more tension and thus obviate the oscillation.

Dr. LUTZ: That would only occur in the case of the formation of adhesions, because every time the man opens his eye a change occurs in the iris, certainly then the detached portion would move, and it occurs to me, that if this man was in an occupation in which it mattered much how distinctly he saw bodies, this curtain which divides the pupil into two would be a source of constant annoyance. I don't know how much risk there would be in performing iridectomy. The margin of the iris is a considerable distance from the margin of the cornea. It seems to me that the operation could be performed without any serious injury.

Dr. MEISENBACK: In connection with this interesting case I have one that is similar to it to relate. During last fall one of the guards of the workhouse was careless enough to handle his gun in such a way as to produce a gunshot wound involving his two arms, the charge passed through his arms and several of the shot lodged in the temple. I extracted the bullets and finally amputated one of the arms. There was an effusion of blood into the anterior chamber so that at first I did not notice this detaching of the iris. I used the diagnostic sighns that are ordinarily employed to test vision and paid no especial attention to the condition of the eye at the time; but I found that sight was entirely

gone, and as the effusion was gradually absorbed the detachment of the iris became marked. The detachment is still present. I suppose it measures, perhaps quite a quarter of an inch in length that is taking the distance across the iris into consideration; and perhaps one eighth of an inch in breadth from the periphery. The man's sight is considerably improved. He says it does not inconvenience him much. He can not see as distinctly as he formerly could. He has two pupils, one is in the superior border of the iris. This detachment was produced no doubt by the severe shock from the buckshot that lodged upon the temple.

Dr. DICKINSON: There is a case on record in which the entire iris was removed. This accident occurred during the operation, for iridectomy: the patient made a movement of his head in a contrary direction and the greater part of the iris was detached. The operator—Graefe—then completed its removal, and vision so far from being destroyed was not sensibly diminished.

Dr. WILLIAMS: I should wait on this patient for a considerable time so as to see whether or not a traumatic cataract is going to be developed, and if it does, it is useless to make any kind of operation. This detached iris will do him no harm if let alone; if traumatic cataract forms no operation would be of any use except the removal of the chataract. I would be disinclined to operate on the iris in this case unless the man is troubled with confusion of vision: in that case it would be a matter of necessity; otherwise I would let it alone. There is no harm at all in removing that detached iris; it can be done easily enough if there is any benefit to result from it. So far as I can judge the bottom of the eye is not seriously injured for the reason that the red reflex from the bottom of the eye is too uniform. There is no hemorrhage into the bottom of the eye. In my opinion it is possible that it may be injured and the injury not be visible; but my impression is that it is not. Detachment of the iris from the margin, or from the Ciliary process is not uncommon. I remember a case that I saw in Cincinnati where a small piece of metal struck the lower margin of the cornea hard enough to cut through the cornea, through the iris and into the lens and traumatic cateract formed which gradually absorbed; and after some cosiderable time the lens was absorbed so that the man could see through this artificial puncture in the iris. This opening into the iris was about as large as a pinhead; the man had a double vision by seeing through this little hole in the iris and also through the natural pupil. The vision that he had through this small opening was so far towards the margin that it didn't amount to anything; we advised him to let it alone. This was some years ago and what has happened since then, of course, I don't know. In this case if traumatic cataract develops, as it may do, no operation short of its removal will be of any service. If troublesome double vision supervenes, then an operation would.

be necessary. There would be no difficulty at all in removing that portion of the iris.

Dr. POLLACK: I don't see how it is possible double vision can occur: there may be confusion of vision, but the light must necessarily come to some focus; must always strike the retina at some point. And I don't understand the doctor's use of the expression, traumatic cataract, I think it should develope in less than three weeks: traumatic cataract would have formed ere this. I never heard of traumatic cataract forming after the third week after the injury. Two or three days is the longest time at which they form usually, at least that is my experience.

Dr. WILLIAMS: Traumatic cataract may develop in three months, six months, or twelve months after the injury: it is not at all uncommon to have them formed at these periods of time after the injury where the cataract could be traced to the injury. I remember the case of a young man at Kirkwood some years ago, who was riding through the woods and a twig struck him in the eye injuring him quite seriously, but it passed off and in the course of 12 months he began to notice that that eye was failing him. I examined the eye and found that it was becoming opaque. This trouble occurred only in one eye and consequently I could say positively that the cataract was the result of the injury. There was no question at all in my mind that it was traumatic cataract. If it had been simple cataract it would have developed in both eyes. I call cataract traumatic when it comes as the result of injury either directly or indirectly.

Dr. DICKINSON: In regard to traumatic cataract I am of the opinion that the term "traumatic" is usually reserved for that form which results within a short period of time,—within two or three days. I have never seen it defined as "traumatic" where it occurred later. We may have ultimate cateract resulting from an injury received some time before, but it is hardly recognized as traumatic in the ordinary sense of the term.

Dr. WILLIAMS: It must be traumatic if it results from an injury: I call that cataract traumatic, which is the result of an injury whether immediate or not. If the cataract is spontaneous the man will have the cataract occurring in both eyes, necessarily so.

Empyemia.

Dr. LUTZ: The specimen that I have here is a lung that I removed on post-mortem examination on last Sunday morning. The history of the case is about this. The boy, 13 years of age, was admitted to the hospital on the 29th of October. He came under the care of Dr. Wessler. He suffered from what the doctor supposed to be pneumonia on the left side. He kept getting

worse untill last Sunday morning the doctor asked me to see him. Upon making a careful examination, I found on the left side, above the fifth intercostal space, near the anterior margin of the axillary border a fluctuation. There was dullness on percussion as high up as the fourth intercostal space, and posteriorly all along the margins of the scapula and extending in a downward direction as far as the chest reached. There was no displacement of the heart apex beat. It was in its normal position. The temperature was 102 1-2 and the pulse 110. He spat up material that was very fetid. Well, the differential diagnosis between whether the boy was suffering with gangrene of the lung, or from empyemia was not very easy to make out. In the first place, I got no succussion sound. The dullness was circumscribed in the apex of the lung; there was no vesicular murmur. Then too, the previous history of the case was unknown to us The boy's relatives lived outside the city and all that was furnished us in the way of a history was that the boy had been suffering for some time. I suggested that this abscess be opened. I made a free incision in the fifth intercostal space and at once about half a pint of very fetid pus escaped; the same kind that the boy spat up. During the time that the pus was flowing into the basin he had several paroxysms of coughing and spat up the same kind of material. I then irrigated the cavity very thoroughly with antiseptic lotion and made a second opening further down so as to insure the proper drainage of the cavity. Well, he seemed to rally. The cavity was cleansed thoroughly twice a day. After the irrigation his temperature fell, and he began to sleep quietly. There was a less amount of expectoration of this purulent matter, and it gradually changed into the expectoration of mucus only. His temperature fell, as I said, but the boy was never able to retain anything on his stomach; he vomited incessantly; nothing could be retained, and nothing that we could do stopped it. For four days he got along as I thought very well, but then he gradually began to fail; and the temperature to rise, and in spite of the very careful irrigation the temperature could not be reduced, and he died on Saturday. I consider that the rise of temperature was due to the absorption of the purulent material from the cavity. We made a post-mortem examination and upon opening the thorax found that we had to deal with a circumscribed empyemia; that the boy had evidently suffered from double pleurisy recently, because the entire surface of the visceral pleura was adherent at numerous points. On the left side there were adhesions between the apex of the lung and the thorax. They began at the fifth space and extended downward to the diaphragmatic viscera anteriorly almost from the margin of the heart to the spinal column, around the cavity the walls were eroded. This cavity communicated with the superior point—the one where the abcess pointed—the rib was considerably eaten away. I don't think that the opening that was

made anteriorly did much good any way. About that portion of the lung which formed the anterior border of this cavity there was an ulcer which communicated with this empyemia; so that there was direct communication between the bronchial tubes and this abcess, which explained, as I supposed before I made the post-mortem, that there was a communication between this abcess and the bronchial tubes. Then there was found in the abdominal cavity considerable effusion—fibrous effusion which accounted for something that I failed to mention, that was, his complaint, his constant complaint of what he called "belly-ache". There was a peritonitis, evidently septic in its nature. Perhaps the same cause that occasioned the pleuritis and which gave rise to the empyemia caused the peritonitis. I have no doubt that it was septic in its character. The specimen is shrunken considerably, but is sufficiently well preserved to show the existence of this ulcer with the opening between the bronchial tube and the cavity. Now I will say in connection with this case that it demonstrates the folly of aspiration in any case of this kind. It was suggested when I performed this operation that aspiration would probaply be sufficient; but I really think that aspiration in a case of this kind will do no good at all, if it did any thing it would do harm. In a case of this kind in which it is evident that systematic infection is taking place, nothing will be of avail except thorough drainage in such a manner that this drainage can be continued with propper irrigation—proper washing out of the cavity and dislodging of the pus that might possibly be absorbed. The opening made for the evacuation of the pus was sufficient under the circumstances, but I think that if I had made the opening farther down it would be better, it would have favored more thorough drainage. I spoke on a former occasion in this society on this subject and mentioned a case in which I performed exsection of the rib for empyemia and I was considerably criticised, yet I will say that in all these cases a free incision—one that will allow proper drainage, is the only thing that will save your patient. Whether it is advisable to perform exsection of the ribs in children I am not prepared to say: my experience is very limited in pleuritic effusion in children. The ordinary effusion in children—simple serous effusions that follow pleuritis, are usually absorped without any mechanical assistance, and if they are not absorbed they are the ones in which aspiration accomplishes something; that is to say, where there is serous effusion in the child and you aspirate the likelihood is it will not return—will not become septic, but in adults I believe proper drainage of the effusions, whether they be purulent or simply serous, is the thing to be done. Of course certain precautions ought to be taken to exclude the air from the thoracic and pleural cavities and to prevent this I introduce a trocar through the in ercostal space to which is attached a hose that is in turn dropped into a vessel

containing an antiseptic lotion. This will act as a syphon and will completely drain out the cavity.

DR. MULHALL: I don't see that there is anything peculiarly interesting about this case except that it strikes me that the empyemia must have been diagnosed at a rather late hour. If the empyemia existed long enough to produce necrosis of the pulmonary pleura and alveoola and form the communication with a bronchial tube, it must have existed a long time before it was diagnosed. It seems to me that the surgical treatment was correct enough, but that the medical treatment, so far as the diagnosis was concerned was at fault. If the empyemia had been diagnosed a month before and Dr. Lutz had then performed the operation, it most likely would have been successful. The operation of irrigating the pleural cavity; of making a direct opening and introducing a drainage tube is one that has lately got to be very successful; many children have been re scued from death's door by the operation. The ulcer is certainly ante-mortem, and far from being acute.

Dr. MEISENBACH: There seems to be a great difference in opinion in regard to the opening of empyemic cavities, as to whether these openings should be free and the pus all evacuated at once, or whether they should be gardual. No doubt many of us have seen good results from both methods, and also, oftentimes direful ones; yet on the whole, it, perhaps, would seem the most reasonable that these abscesses should be opened gradually. We know that abscesses form on other portions of the body and open spontaneously and cause the patient a very severe shock from which he rarely recovers. In children as Dr. Mulhall has very rightly stated, a free opening of the chest, oftentimes rescues from death's door, yet in very many cases this free evacuation only hastens the result. The drainage and the irrigation in these cases must be of the most thorough character. In my experience I have found that iodine was preferable to carbolic acid for several reasons. The iodine is not so much used as an antiseptic but it has a process of aggulating the surfaces—that is, setting up active and healthy gradulations in those surfaces with which it comes in contact; as, for instance, in hydrocele and serous effusions into cavities, often the injection of a solution of iodine will agglutinate the surfaces to which it is applied. Another very important point to be looked after is the matter of the drainage tube. Drainage tubes are of rubber; those of bone have been substituted to some extent recently, with what restlts I do not know, having never used them. The prime object of a drainage tube is to keep the wound open and romove the secretion and it is of the greatest importance to see that it fulfills its object fully; that it does not clog nor collapse. A friend of mine recently had constructed a drainage tube for such cavities, made of silver and formed like the elbow of a stove pipe, at an angle which

enables it to encircle a portion of the rib; the opening in the tube is a long slot. This is to be introduced into the cavity and turned under the rib. It is said this little instrument often answ rs very admirably. My preference, however, is for stiff rubber tube. Then another point is the fastening of the tube. This is often very vexatious, especially in children; the tube is introduced as the physician supposes excellently and when he goes there the next day he finds it is necessary to replace it. My method of fastening is to take the shield, such as are used on long sucking bottles. I take that off; there is a hole in the center through which I pass the tube; I insert this and fasten it with a pin run through the tube and through the shield. After this I take an ordinary piece of adhesive plaster, with a hole cut in it so as to fit the projecting tube. I find this is non-irritating and the drainage is perfect. So far as the facts in this case are concerned there is no doubt but that the empyemia was diagnosed at a very late stage indeed. Had it been discovered in time I have no doubt but that sufficient drainage could have been established, before the boy's health had been so much undermined, and the septic infection would not have taken place. The ulcer in the lung is no doubt ante-mortem and the communication between it and the pus cavity was of such extent that it was no doubt, very easy to mislead the surgeon in regard to the true character of the case, especially as they did not have a distinct previous history.

DR. LUTZ: I want to say a few words as to the position taken by the doctor, that is, about the gradual opening of the empyemic cavity. If anything is settled in surgery of the chest it is the necessity of freely evacuating an empyemia whenever found, and I freely assert that if a surgeon were sued formal practice and hadn't done it, a sufficient number of surgeons could be found to sustain the plaintiff in the case. Here you have a large serous surface from which hundreds of stromata are absorbed readily; like the peritoneal cavity you have a cavity that absorbs readily, you have a cavity that is surrounded by a fixed wall which makes a certain pressure and therefore aids the absorption of the pus; then you have in close proximity to this pus important organs and structures; you have the pericardium, you have the large vessels. Suppose that this pus, instead of finding an exit through the intercostal space should eat an opening through the pericardium, where would the patient be? How do you know what will transpire during tha time that you are waiting for nature to gradually evacuate the contents of the abcess. Suppose the ulcer had found its way through into the mediastinum or any of the important organs contained in the chest? I don't forget that there are cases of empyemia that get well spontaneously, but I imagine that that is something very like finding a white crow. If I had empyemia I should not trust to nature to evacuate it, nor would I have it evacuated gradually. We should

never take the risk. Here you have a cavity the contents of which are continually undermining the constitution of your patient, his temperature rises to 102 or 103 degrees, he has a rapid pulse; his nutrition is failing on account of the systemic infection; can you stand by and wait for nature to make an opening? The dangers of opening the cavity are not very great if you practice antiseptics thoroughly. If you make the incision in the best possible position for the evacuation of the pus; and give the best possible drainage and keep out all atmospheric air. If you have introduced the aspirator needle into the intercostal space and found that you have empyemia to deal with, the first duty of the surgeon is to evacuate it in such a manner as to prevent the ingress of atmospheric air. This can be done by introducing your trocar attached to a drainage tube which has the end placed in a vessel containing antiseptic fluid, In this manner you can keep up constant drainage; the pus can be completely evacuated without admitting the air. I think the conclusion generally arrived at in this regard is, that the removal of the fluid does no injury to the patient if all the fluid is removed. The first injury may be to the lung itself, on the supposition that there might be a rupture of the lung by its sudden expansion. In a case of pleuratic effusion the lung is compressed and driven back. If no adhesions are formed in the lung as the fluid is evacuated from the pleural cavity the lung gradually expands, and it was supposed that if this was all drained away at one time the lung might rupture by the sudden flowing in of air into the bronchial tubes and the dilating of the vesicles; but this is not so especially if it is done gradually. I have repeated a very simple experiment for my own information as I have taken considerable interest in the pleural cavity. If you take a clear glass box, and have attached to that near the center of one side an opening through which to pass the drainage tube; you then take one of those toy balloons and attach to that a pipe stem and let that go into the center of the glass box which is filled with water. You then allow the water to drain off through the side opening. The pipe stem represents the trachea; the rubber ball collapsed represents the lung; the water in the box will represent the pleural effusion; the glass box the thoracic wall. Of course we understand the thoracic walls are not so rigid, they assume different positions every time we breathe. Now if you allow the water to drain out of the box there will be an amount of suction exerted. This will be in an inverse ratio to the length of the tube. If you allow this water to flow out gradually, you will find that your balloon will expand. Now you do this hurriedly; that is, you allow the suction to be very strong and your baloon will burst. This has been a mooted question for some time, and I believe it has been distinctly settled in favor of emptying the entire pleural cavity. I don't wish to make a long speech on this subject, but I will repeat again that it is absolutely necessary whenever

you have empyemia to evacuate it freely; and I believe that to allow the empyemia to go on, is to subject your patient to a risk that neither he nor the surgeon ean well afford to stand.

SATURDAY, Nov. 18, 1882.

The Linton District Medical Society.

DR. LUTZ.—Some weeks ago I received an invitation from the Linton District Society, to read a paper at the semi annual meeting, which convened at Mexico, Mo., on last Tuesday. The Linton District Medical Society is composed of the number of counties composing the congressional district. It has a membership of something like one hundred. Its meetings are usually attended by about seventy-five physicians from the various counties. At the meeting which I attended, there were eight or ten papers read by different gentlemen. One on Laceration of the Cervix Uteri; another on Serosis of the Lung; one was read by Dr. R.——, of Mexico, on The Use of Antiseptics in Surgery, in which he took the ground, that the theory of infection and putrefaction caused by microscopic animals, was not tenable; he rather inclined to the explanation of putrefaction by the chemical theory simply. He believes that antiseptics act by preventing putrefaction chemically. There was also a paper on Infantile Convulsions. The society is a very intelligent body of men and took great interest in the discussions. They certainly showed that they are on the alert and keeping pace with the progress in our profession. They did me the honor of listening to my paper—a very imperfect one—in regard to the treatment of rupture of the male urethra, a subject in which I have been considerably interested on account of quite a number of cases that I have had under my care. I have performed perineal section for rupture of the urethra ten times and I took occasion to detail the treatment in this class of injuries. While at the meeting I had occasion to hear a good deal said about the St. Louis Medical Society and our proceedings, and whilst we ourselves may not be aware of it, we are being closely watched. The profession throughout the State watch the proceedings of this society with a great deal of care and are guided in no small degree by what they read of our having said (?) and we receive great credit for the manner in which the minutes of its scientific proceedings are published in our JOURNAL. The society will meet next year at Columbia and already they have quite a large number of papers promised by gentlemen who were in attendance.

DR. POLLAK.—I wish to present a pathological specimen—a living one; a patient who came to the hospital this morning from Ellsberry, Mo., who had met with an injury to one of his

eyes by having a thorn run into it, which caused traumatic cataract. and not only that but the capsule of the lens was split open wide enough to allow the exuding of the lens entirely and its displacement into the anterior chamber. The whole lens is in the anterior chamber which is enormously swollen, indeed so much so that it has lacerated the whole papillary margin of the iris. It acted like a wedge and lacerated the whole papillary margin. He has been free from pain, I believe, until last night, when he commenced to have pain caused by the pressure upon the ciliary process. The injury was received two weeks ago. We can follow two plans of treatment in such cases. We can leave the absorption entirely to nature; it would take a long time, probably several weeks, perhaps months; or we may evacuate the contents of the anterior chamber by removing a portion of the lens. The lens is perfectly soft—semi-fluid. Absorption will occur sooner or later, but it would be greatly accelerated and he has commenced to suffer ciliary pain and this is a serious matter. I am much afraid that if the ciliary neuralgia increases, ophthalmia may begin in the other eye. I would be in favor of incising the cornea and evacuating the anterior chamber of the lenticular substance. I would like to hear what the other oculists think about it.

DR. DICKINSON.—This, gentlemen, is very pertinent to the subject discussed last Saturday evening. Here we have a cataract resulting from an injury—the thrusting of a thorn through the cornea—and lacerating the anterior capsule of the lens. The aqueous humor coming in contact with the lenticular substance has caused the appearance now present. By inbibition of aqueous humor its color has changed and its volume very greatly increased and dispersed, so much so that it now pervades pretty generally both aqueous chambers. This increase in bulk has occasioned pressure on the iris and the ciliary processes, which has given rise to the ciliary neuralgia. Absorption has already progressed to a considerable degree. It is remarkable that the man did not earlier experience pain, inasmuch as the accident occurred two weeks ago. The supervention of traumatic cataract usually occurrs within two or three days after the receipt of the injury; the ciliary pain—the neuralgia—follows immedialely after in most cases. In these cases we have to apprehend the glaucoma, the mechanism of which consists, as is now well understood, of pressure upon the ciliary processes behind and pushing forward the iris at the ciliary border close Fontana's space, so as to prevent infiltration of the aqueous humor through it to Schlemm's canal and thence to the surface or through other channels. I have seen somewhere within a very short space of time, this fact illustrated, that there is more or less communication between Schlemm's canal and the other lymphatic spaces and these through the medium of the perichoroidal and supravaginal spaces with the arachnoid cavity. The absorption in

this case *may* take place spontaneously but it will be greatly accelerated by puncturing the anterior chamber, by making quite a large puncture and allow of the escape of the aqueous humor and also of the lenticular substance assimilated in it. If it should not all readily escape, a little manipulation will suffice to remove it. I would incline to that treatment.

DR. WILLIAMS—I would wait on the case and see whether he suffers from iritis, and if severe suffering followed this trouble or not. If not I would be disposed to let nature take away the cataract by absorption. Absorption is going on rapidly; the lens substance is quite soft and will certainly absorb rapidly so as to stop the danger so far as the eye is concerned. If he suffers severely from the pressure of this swollen lens substance upon the iris, the only remedy is to puncture the cornea and let the lens substance out—let at least the fluid or soft portion out; and if a portion of the lens remained and was difficult to get out, I would be disposed to let it remain. Certainly there is no violent inflammation set up yet. If severe and dangerous inflammation does ensue, then the operation indicated is the only remedy, but if not I would allow nature to effect the cure and thus avoid the danger of an operation because it is not very safe, in my experience, to disturb the iris after it has already suffered from inflammation. An inflamed iris doesn't bear to be disturbed very much and for that reason, if he doesn't suffer any I should let it alone and let nature absorb the cataract. So far as sympathetic trouble is concerned I should not fear it at all in this case, it is only in cases where there are foreign substances in the eyeball that we have danger from sympathetic irritation, but of this there is no danger in this case.

DR. GREGORY.—This case reminds me very much of a case that came under my care about ten years ago. A gentleman, in driving some cattle through some thick brush, received an injury in his eye and came to the city to consult an oculist, and asked me to examine his eye. I did so and advised him to go to an oculist. I discovered, however, that the lens was injured and I thought the substance of the lens was broken down and was in the anterior chamber; I gave him my opinion in regard to it, but advised and urged him go to an oculist. He said that if I was willing to risk my opinion he would return home. I told him I felt pretty sure that the lens substance was in the anterior chamber and I thought it would be absorbed. There was little or no inflammation in the eye and he returned home without consulting an oculist. I learned afterwards that the eye cleared up in the course of a few weeks and his sight, which he had discovered was gone before he left the city, had returned. Now with due deference to Dr. Williams, it seems to me that no harm could come from simply making a section of the cornea and letting the substance run out. I don't know what

harm would occur and it seems to me it would relieve the structures very materially that are pressed upon by this lens substance. This lens substance is really a foreign body, to some extent a foreign substance. It is so changed in its quality that it may be said to act the part of a foreign body and in view of the time which it would probably occupy for its disappearance and the possible dangers incident to its remaining there, I cannot see any objetoion at all to making the section of the cornea and letting the substance out. My observation in these cases is limited, but it has beeu my experience that I have never seen any ill consequences result from corneæ in similar cases. It seems to me they act well and kindly and I should be a little afraid of the consequences of iritis and its probable dangers if this is not resorted to. It seems to me a minor operation—the opening of the anterior chamber and permitting the lens substance to run out. It is certainly less dangerous that the possible harm it may do by remaining there.

DR. WILLIAMS.—Mr. President, I want to say one word for fear I am not understood. I do not object to a puncture of the cornea and letting the lens substance escape. I think, however, that we can avoid the responsibility and risk of the operation by letting nature take its course. That is my position. Nature will certainly cure it very effectually, if severe destructive inflammation does not come on in the meantime; and if it does, the operation is at hand at any time. My chief objection to puncturing the cornea in this case is on account of the iritis—the inflammation already produced, and my experience teaches me that when we disturb an inflamed iris we simply increase the inflammation and the inflammation is apt to be more destructive after the lens substance has been taken away. If nature will cure the trouble it is better to leave it alone rather than risk the operation when it is not necessary. When it is absolutely necessary to perform the operation, if the trouble becomes more painful and we see that the inflammation is going to become dangerous, then the operation is the thing. Here the absorption is going on rapidly and certainly in a very short time this distention, this pressure of the lens substance will be all relieved by the process of absorption, and consequently the irritation will not be nearly so great. So far as traumatic cataract is concerned, I stated the other evening that the traumatic cataract might occur several months after the injury had been received. This was objected to. I will state further in regard to the matter, that when the lens capsule is ruptured, traumatic cataract occurs immediately,—in two, three or four days—immediately I may say; but in cases where the lens capsule is not ruptured this traumatic cataract may not be visible for five, six, eight, ten or even twelve months afterwards. In an indefinite course of time a trumatic cataract may result. If the cataract results from an injury, I call it a traumatic cataract. I am satisisfied that

I am correct about this. This is one of the things that I know. Now this delayed traumatic cataract is evidently the result of concussion, of shock of the lens so as to disturb the natural nutrition of the lens and consequently opacity of the lens substance develops very gradually afterwards. It may take an indefinite time, five months, twelve months or even longer than that, but in all these cases where there is a cataract in one eye and no evidence of it in the other and I can possibly discover the history of an injury, I at once make favorable prognosis. If the patient tells me that he has received an injury in the eye at some time, I tell him that he will not have it in the other eye. They are always anxious to know whether they will get the trouble in the other eye or not. Where the patient has received an injury in one eye and a cataract has formed and there is no sign of it in the other eye, I always give a favorable prognosis and it is always satisfactory to the patient.

DR. DICKINSON.—Inasmuch as I have been alluded to I will only say that it was not maintained that cataract *might* not result some time after the injury, but that in its usual signification the term "traumatic" cataract was applied to such as follow in a few days after the injury.

DR. POLLAK.—In the present instance I don't think it would be advisable for the patient to wait for the absorption of the cataract. He lives a long distance from here and was sent here by a physician. Now I don't know that it would be right to let him go home and run the risk of having an inflammation set in, when it may not be possible to arrest it immediately. I think it would probably be better to perform this operation before he goes away, as we cannot keep him here until the absorption has taken place. If I should let him go home as he is, I run the risk of having a serious neuralgia set in.

SATURDAY Nov. 25, 1882.

DR. MEISENBACH.—Two weeks ago to-night Dr. Pollak presented a case of detachment of the irris, and at that time I mentioned a similar case occurring in my practice, due to traumatism. To-night I have the case here and would like to present the patient both on account of the detached iris and also an account of one or two other points of interest. The patient, at the time the accident occurred, was standing guard at the workhouse and was so unfortumute as to discharge his gun in such a manner as to have the charge pass through both arms, passing through the middle of the upper third of the right forearm and through the lower portion of the left forearm in the vicinity of the wrist joint, shooting away the ulna. He had in fact, a very miraculous escape. Had the deflection of the muzzle

of the gun been a quarter of an inch nearer to the body it would have taken his head off. No less than eighteen buckshot passed within an eighth of an inch of the skull, three of them striking the right temple in the region of the zygomatic arch. At the time of the accident—I think it was an hour afterward—I was called to see the patient and I found the right eye very much suffused with blood; the anterior surface was entirely filled. The detached iris at that time escaped my notice, in fact I paid little attention to it at that time, as I was engaged with the major injuries. The patient was bleeding profusely. As the hemorrhage in the anterior chamber became absorbed the detached condition of the iris first became apparent. The patient drew my attention to the eye by complaining of not being able to see with it; yet as the hemorrhage was absorbed the sight became plainer, but his sight is by no means perfect. The detachment of the iris is in the superior periphery. The other points of interest in the case are the injuries to the arm. At the time that I saw him after the accident there was still pulsation to a certain extent in the radial artery of the right arm and I hoped that by proper treatment I might save the integrity of the member. I applied warm applications, but seventy-two hours after the accident, the circulation became obstructed and gangrene set in, and in fact the spread of that process was so rapid that I had to amputate it higher up than I at first intended. I intended to amputate it below the elbow, but by the time I began the operation I saw that I would have to go higher up; in fact I could not wait for a line of demarkation to take place, fearing that if I did the life of the patient would be placed in jeopardy. For the first twenty-four hours after the operation I was in some doub', although the most careful antiseptic precautions were taken, as to whether it would be successful or whether secondary gangrene might not possibly set in. In making the primary incision through the integment high up in the middle third, I still found the cellular tissue very much infiltrated and it was with great pleasure after twenty-four hours that I became satisfied that no secondary gangrene would set in. The second point of interest about the case is the left arm. You will see here that the wound was perhaps six inches in length; the ulna protruded, the articular surface was very nearly exposed; the knuckle of the wrist was shot away. This was a very nice case where a surgeon might have interfered operatively and produced an excision of the ulna in continuity, but I was loth to detach it. We know that in gun-shot fractures there is extensive sloughing of the tissue and that any meddlesome surgery in this case might perhaps have produced more evil than he would have done good. I left it to nature and I was not disappointed. I used the strictest antiseptic precautions. The member is very serviceable.

DR. POLLAK.—I want to report a similar case that came to me this week from Iowa. The patient was totally blind. He was

shot four months ago. One shot struck the orbit of the left eye and shot off the apex of the eye entirely, the cornea was shot off and the chrystaline lens and the vitreous humor both escaped and the bulb of the eye was atrophied; but the strangest part of it is that the very same shot entered the angle of the eye and went behind the nose, behind the bulb of the other eye and cut off the optic nerve entirely of the other eye. Although apparently perfectly sound and as handsome as can be, he is utterly blind. He was sent down this week from Iowa to see if something couldn't be done for him; but it is utterly useless to try; he is totally blind. He thought as one eye looked so perfect that something might be done. The shot is doubtless behind the eyeball now. This has no connection with the case that Dr. Meistnbach reported, but I thought I would report it.

DR. WILLIAMS.—I have a case which I want to present, it will take only a few minutes. This is a case of melanosis of the ciliary body of the right eye—of the outer and lower portion of the same. It is now twenty years since he first noticed the appearance of the trouble. At that time it was a mere black point at the place where the tumor is now. It began growing twenty years ago and it gradually increased until it reached the size that it has at present. This growth is exceptional in two ways: First, the progress of the trouble is usually slow. As a rule we find where these melanotic tumors developed, that in the course of a few months after their first appearance they destroy the eye completely. That was not the case with him. Then in the second place this growth has developed outwards from the ciliary body and not inwards as the rule is. You will notice that the whole tumor is entirely outside of the globe and has not grown from the ciliary body in the vitreous chamber and filled that up as they usually do. The prognosis of course, is unfavorable. It is favorable, I might say, in the sense, that the growth of the tumor is very slow; in fact it seems to be stationary and has been for some considerable time, apparently. The vision in the eye is very good; not perfect but quite good and up to six months ago was perfect. At that time an attemp. was made to remove the tumor. The patient states that the growth has been shaved off or cauterized as many as a hundred times and that it reforms in a short time and grows until it reaches about the present size and then it seems perfectly stationary and remains that way. It is a strange thing that it doesn't progress, that it seems so nearly stationary. It is certainly malignant; there is no question in my mind about that, so that the prognosis of course, is altogether unfavorable. The treatment is one of two things: either let it alone entirely or remove the eyeball. I have told you that the best thing for him to do would be to have the eyeball removed; but as he sees quite well with the eye yet and the growth occasions him comparatively no trouble, he has difficulty to make up his mind. This case is something of a

rarity and I present it to show what kind of a thing will sometimes develope in the eyeball. I call it melanosis and I am satisfied that that is the nature of the trouble, although the long history of its growth would seem to contradict that idea; but then the color of the tumor and its persistency in returning when cut away, certainly shows it is malignant in character. That is my diagnosis. If there is a possibility of it being anything else I would like to know it because in that case the treatment would possibly be something else. I would like to hear from the gentlemem who have an idea to express about the matter as to the nature of the trouble and what can be done for it.

DR. GREEN.—I am not an occulist, still from my general knowledge, I think that this is not a malignant tumor. I don't think we can call this a case of melanosis. The fact that the case is one of twenty years standing, speaks against it being malignant in its nature. Secondly, it did not destroy the surrounding parts; that is another fact that is against its being malignant in nature. Third, when it reaches a certain size it ceases to grow; that would tend to show that it isnot malignant in its nature. The only thing that speaks in favor of malignity, is the fact that it recurs so many times and we can explain that fact very easily: that little tumor was never fully extirpated, there was always a little of it left behind and it seems to me that in that space of time it would not only have destroyed the eye, but would have infected the general organism. Here, this is not the case. If you extirpate the eyeball it may destroy the other eye.

DR. BERNAYS.—I am rather surprised to hear that expression of opinion from Dr. Green. He heard me state my grounds for thinking it should be extirpated, a while ago. I said that it ought to be extirpated. We know that those tumors of the choroid mombrane and its appendages, to which belong the ciliary body are malignant, especially when they are black; and in order to go into the morphology of the matter a little I will state that it is a remarkable phenomena that metastatic tumors of the choroid are sometimes white, although the original tumor is black, I have seen them quite large and perfectly white. The proper pathological name for them is melano-hypher sarcoma and there is no doubt that if the Doctor cuts it off, as has been done twenty times before, in this case if he takes a razor and shaves it off and puts a piece of it under the microscope, it will show itself to be a melano-sarcoma; and the reason that it ought to be removed at once is because we know that they are the most infectious of all species of sarcoma. I have no doubt that if this patient were examined post-mortem, it would be found that his lungs would be filled with little black and white tumors of different sizes; and these would also be found in the liver perhaps. Our knowledge of the pathology of this tumor compels us to

advise the patient to have the eye removed. Of course, it is a great disadvantage to the patient to lose an eye, but on the other hand, if it is allowed to remain he never is sure that a new metastatic tumor may not form by the loosening of one or two black or white cells from this little tumor and their passage through the blood or lymph vessels into other portions of the body.

DR. POLLAK.—I should suppose that if this were a melanotic tumor it would have grown much more rapidly; twenty years seems to me a long time for it to have been developing. It is rather difficult for me to suppose that this is a melanotic sarcoma; I am not able to diagnosticate anything else, however. Appearances certainly favor the view that it is, but the history of the case rather militates against it. If it had been a malignant tumor I suppose the sight would have been destroyed at least by this time. Twenty years is a very long time for this tumor to have been growing. So long as the disease remains stationary, I doubt very much whether I could possibly advise ennucleation of the eye. As soon as he had pain in it or experienced any inconvenience or discomsort from it I would be in favor of its removal at once. It is pretty hard to advise a person to have his eye removed when he is suffering no pain in it. I know that the pathology which Dr. Bernays has stated is absolutely correct, but I certainly should not advise him to have it ennucleated while he is in the condition he is now.

DR. STEVENS.—It seems to me that in a case of this kind the question of the removal of the eye should depend upon the history of the case, even supposing that it is somewhat malignant. The matter of the rapidity of the growth, how long the intervals are between the operations and whether the intervals decrease in length, all these things have to be taken into consideration in determining whether we ought to operate or not. If the disease does not increase and the intervals between the operations do increase, I would say usually we ought to take a conservative stand—it is always best in surgery—and wait for it to develop; but if the intervals became shorter and shorter, and the disease is making progress, then I would say operate. I am very much in favor of the conservative plan. I don't know the history of this case, as to what progress it is making, whether the intervals are becoming longer or shorter, but if the intervals are not becoming shorter, as he is a young man—twenty-five years of age—Ishould favor the conservative plan.

DR. MUDD.—It seems to me that the color of the tumor does not warrant any one in saying that it is connected with the choroid coat. We may have that character of tumor in any other tissue. If it was connected with the choroid coat it would almost certainly have destroyed the eye before this time. It would have filled the chambers of the eye rather than have protruded

so that you could distinguish any prominence as it does here. I don't believe this tumor had its inception in the choroid coat. I don't believe it is a malignant tumor; I don't believe it is a melano-sarcoma. The history of the tumor is of twenty years standing as I understand. Recurring tumors are not always malignant. Some of the most rapidly recurring tumors that we have are not malignant; and the fact of the repeated recurrence of this tumor is, I think, a warrant for saying that it is not a malignant tumor. So far as my observation goes with these melano-sarcoma, they are exceedingly malignant and reproduce themselves not only locally, but there is a recurrence of the appearance in other parts; the infection is very rapid, is not confined to the glands next in contiguity, but there is infection of the blood and in other organs, usually the lungs or liver, or internal organ as well as in the parts originally infected. The history of them, so far as I have observed them, have been very much shorter than this one. I remember very well the history of a case of a man as healthy as this one, who had a little tumor on the buttocks, a tumor not as large as this. It was excised by a physician who lives in this city at the present time; it recurred and was again excised, it recurred again and at this time I saw the case and upon close examination at this time, we found that the lumbar glands were involved, that there was infiltration of the mesenteric glands also and although the man was in better health than this one, apparently, he was dead in less than three months. There was infiltration of the lungs and liver. Of course, this case proves nothing in connection with the case of this man. The longest duration of sarcoma in my personal experience, was from six to eight years, and this was the case of a woman well advanced in life, where it appeared late in life. In this case according to the history, the tumor must have commenced when he was a youth, and it seems to me that if it were a melano-sarcoma, it would have destroyed the eye almost certainly before this time. I think the history of this case is strongly in favor of the theory of the innocent character of this tumor. Melano-sarcoma is of very great malignancy. Now as regards the matter of what should be done in this case, I suppose it is in the experience of every one who has observed tumors, that innocent tumors become malignant at times. The simplest tumor that we know of—the sebaceous cyst—becomes malignant at times, just as we may have malignant tumors spring from any of the tissues. The tumor in itself shows a disposition to cause disturbance in growth and in nutrition, or some disturbance locally, and may or may not terminate in malignant tumor; and we cannot say of this or that tumor that it is not going to become malignant.

DR. BERNAYS.—There is a difference of opinion in regard to the nature of this tumor, but fortunately we can by the use of the microscope, readily decide the nature of it. From my first

examination I believe that it is a tumor of the ciliary body. We sometimes find in the subconjunctival connective tissue in very dark people, very dark cells in the connective tissue of the conjunctiva, a tumor might have started there and then it would be just the same, a melano-sarcoma and it ought to be extirpated on that account. Such paradox expressions as that melano-sarcoma should not be extirpated, I believe have never been seriously uttered by any one who might have a claim to being an authority in surgery. The more malignant a tumor is, the more quickly ought it to be extirpated. That seems to be one of the thoroughly established principles in surgery. Some orator said that some innocent tumors sometimes became malignant. That, as a general statement, is true; but if the gentleman will not consider it as going into an examination, I would like to have a more scientific explanation, or more of a pathological and etiological explanation of the statement that an innocent tumor may become malignant. I would like him to give us a statement of how and when such a thing is possible in a tumor of this kind. I would like to ask Dr. Williams whether this patient has ever been stripped naked in his presence.

DR. WILLIAMS.—No, sir.

DR. BERNAYS.—I have no doubt in the world that if this patient were stripped it would be found that he has these black and white warts on his body. I would be willing to stake my reputation that this is a melano-sarcoma.

DR. HUGHES.—I would like to inquire of the Doctor how a malignant tumor becomes malignant?

DR. BERNAYS.—They are originally so.

DR. HUGHES.—How do you know that?

DR. BERNAYS.—I cannot answer. I cannot tell how it becomes malignant. I can say almost certainly that it is malignant. If the Doctor wants to know what malignancy is I can tell him that. There are specific tumor cells which increase very rapidly—they are very infectious—they infect the neighboring tissue. Now these cells may be loosened and travel to distant parts of the body, one or two cells may stop in some blood vessel or lymphatic gland and there multiply and form a tumor. That is what we call metastatic malignancy. We don't believe in any miraculous fluid which causes malignancy.

DR. HUGHES.—I wanted to know how malignant tumors become recognized as malignant tumors, at what point in their history do they become malignant?

DR. BERNAYS.—The notion of malignancy is a clinical notion much more than a pathological notion. A malignant tumor is malignant from the very minute that it begins to grow.

DR. GREEN.—I think, Mr. President, we are just as ignorant of the etiology of malignant tumors as we ever were. It is true that we have malignant cells in these cases just as we have other cells in the body, but the question is, what made these cells malignant? Some say that the etiology of the malignant tumor in a great many instances, is irritation. Would Dr. Bernays operate upon a tumor in its very incipiency, if he thinks it is probably malignant, although he is not positive, he cannot say that it is actually malignant? He thinks it is and consequently will extirpate it right away. Is that true, Doctor?

DR. BERNAYS.—Yes, sir.

DR. GREEN.—Just so; and why? Because you think you will save the patient's life. The system is not infected yet. But we say that a benign tumor may become malignant through irritation. If we operate on it several times it may become malignant. Now why is it that a benign tumor becomes manignant? What is a scientific reason for this? If this is true that a benign tumor, if irritated a good many times, becomes malignant, now here is a tumor that has been removed a hundred times and it has not killed the patient.

DR. HUGHES.—When a man asks how benignant tumors are formed, is it reasonable to suppose that he has an idea how benignant tumors are formed? The reason that I asked the question that I did was this :It seems that there is underlying and connected with the formation of tumors and malignant tumors especially, a diathetic condition which may be called into activity at any time in the history of the progress of a tumor growth, which may express itself in an atrophic change or mal-atrophic change which characterizes malignancy in tumors—malignancy that resides in the blood. If it were so, if the current of the circulation carried constantly the constituents of cancer, you would have cancer expressing itself upon the first irritation which developed; on the contrary, you have growths which are recognized as benign, the removal of which is advised universally by surgery, upon the presumption that the tumor, when it first appears, is benign and may not return; and that it is better to remove it than to wait until in the progress of retrogressive change, malignantcy supplements the benignity. Is that not true? Now it is by reason of the fact that in some constitutions, in some organizations you have these diathetic states in consequence of which a localized irritation in one person will present itself in one mal-atrophic change of tissue growths which is characterized as a benignant tumor and in another may display itself in a form which is recognized by surgeons as malign, and in addition to that which may express itself in one period of life in a benign tumor, it may be removed and on its return at a later period in the history of the patient may express itself in a tumor

formation which is malignant in its character. Now, no man can say when he sees a certain tumor growth—there are certain forms of tumor growths which the surgeon recognizes at a glance as benign in character—but no man can say of a certain characterized tumor, that that tumor is always benign, that it will always remain benign and that malignancy will be no part of the history of that growth. Now if benignity may, under the existence of prolonged irritation, become transformed in some individuals into malignancy, it must by reason of a certain diathetic condition of this patient inherent in the organization. We know there are some persome who may have a tumor which will never give any evidence of malignancy; whilst in others we need scarcely more than a scratch to have developed upon which a malignant tumor.

SATURDAY, Dec. 2, 1882.

DR. POLLAK.—Mr. President, two weeks ago to-night I reported a case of traumatic cataract and it caused a good deal of discussion; I want to say that I operated the next Tuesday on the patient and now the pupil is quite clear. The patient has had no trouble whatsoever from the operation, on the other hand the patient has saved a good deal of time and annoyance. He went home to-day, appearing to see very nicely.

DR. COLES.—I would like to ask Dr. Pollak a question in regard to traumatic cataract. I have a near neighbor whose little boy, last year or may be a little over a year, was struck by a gravel from a bean shooter, the gravel striking the eyeball; the eye was open at the time. This caused considerable hemorrhage inside the eye. I told the parents that I thought the blood would be pretty well all absorbed in few days. I learned to-night that the boy was to be operated upon for cataract, to-morrow. Now the question that I wanted to ask is, does cataract almost invariably follow injuries of that kind, where there is an effusion of blood in the anterior chamber of the eye?

DR. POLLAK.—I suppose the capsule of the lens was ruptured, at all events it was detached and then traumatic cataract will ensue very readily. We cannot see the cataract for some time on account of the effusion of blood in the anterior chamber; when the absorption of blood takes place the cararact will manifest itself. When did the cataract manifest itself in this case, Doctor?

DR. COLES.—After the lapse of two or three weeks. As the blood became absorbed in a few days at the lower part of the anterior chamber, where the blood had gravitated, there was a little cloudy appearance, and from that point it seems, the cata-

ract commenced. This cloudiness increased until it involved the whole of the pupil, so that he was blind, at least his sight became impaired gradually. I was under the impression that perhaps the cataract occurred from the effusion of blood and that the lens had not been injured.

DR. POLLAK.—The only point of interest is that the cataract has not been absorbed by this time. I don't think the effusion of blood has anything to do with it.

DR. WILLIAMS.—I don't think there is anything strange at all about the case. It is in perfect harmony with what I said a few evenings ago. You will remember that I stated that a man may have traumatic cataract several months after the injury, and this is a case in point. It is not necessary that the cataract should be absorbed after the receipt of the injury. Those absorb only where the capsule is ruptured. Many of these cases of traumatic cataract result from the concussion, the lens interfering with the proper nutrition of the lens substance, which consequently becomes cataractous, and where the capsule is not ruptured it will not absorb. It is possible that the posterior capsule of this lens was ruptured by the force of the blow; well that would not necessarily make it absorb. It is certain that they do not absorb where the lens are not ruptured, so that the aqueous humor can get into the lens substance.

Remarks on Diphtheria. By Walter Coles, M. D.

Mr. President, as the subject of diphtheria is now agitating the public and professional mind to some extent, I beg leave, in connection with a case which I have to report, to offer a few remarks in regard to certain points connected with this disease.

Florence H., æt nine years, was ill for four weeks during the latter part of March and April, 1882, with so-called typho-malarial fever. This attack was more severe than the average of such cases, and although the patient was naturally a robust and healthy child, the fever left her in an extremely feeble and emaciated condition. Convalescence was delayed also by the supervention of a very large popliteal abscess, which was finally opened, under chloroform. From this time the patient made a rapid recovery. Complete convalescence was scarcely attained, however, when the child was seized with a grave attack of diphtheria. Although the throat was severely inflamed, the diphtheritic character of the disease was quite slow in manifesting itself, so that it was not until the fourth day of the sickness that I felt justified in announcing positively the nature of the case. By the end of the sixth day the characteristic deposit had thickly covered the tonsils, soft and hard palate up to the roots of the teeth, had also involved the pharyngo-nasal cavity.

Owing to the previous history of this case, my anxiety, always great under such circumstances, was increased tenfold,

because I knew that my little patient had not regained sufficient constitutional vigor, to enter upon anything like a fair contest with this most insidious and dreadful disease. Nevertheless she did better than I expected up to the eleventh day; the membranes having by this time commenced to leave the throat and all local symptoms were greatly improved. By the thirteenth day the anginose symptoms had nearly subsided, but the nasal cavity continued in an unsatisfactory condition, so that my efforts were now chiefly directed to the clearing of these parts.

Notwithstanding the most systematic supporting treatment and the satisfactory subsidence of local manifestation, it was evident from the great feebleness of the pulse and pallor of the countenance, that the system was deeply involved and the strength failing rapidly. Up to the eleventh day the patient had spent much of her time sitting in a chair reading; the weather being very warm, she would frequently rise from the bed and walk unassisted to a seat by the open window. Finally, however, I warned the parents that such exertion was dangerous under such circumstances and that she ought on no account to be allowed to assume an upright position. These precautions were strictly observed until the fourteenth day when I visited the patient in the afternoon and found her lying on the bed with a book in her hand, she smilingly remarked that she felt better; and I left her, fondly hoping that all would go well; but I had not gone a block from the house when I was hastily summoned to return and on reaching the bedside of my little patient, I found her in the last gasp—she was dead. On inquiring I learned that as I had previously left the room by one door, the mother had passed out through another for the purpose of nursing an infant. Finding her mother thus engaged, the patient called to the nurse girl and informed her that she desired to use the chamber. The girl, not appreciating the danger, raised the patient from the bed and stood her on her feet, while she looked around for the vessel. The mother, in an adjoining room, heard the sick child remark, "The Doctor says I must not stand up," and immediately laid her baby down and rushed to her assistance but too late, for before she could reach her, she had fallen over in a fatal syncope.

I have made this case the basis of the few remarks which I have to offer, not because it is strange or unique, but because it is a sad illustration of practical truth which we as, physicians should on no account loose sight of. Such sudden and fatal terminations of diphtheria, even after convalescence has apparently set in, is not new in my experience nor is it in that of others, for I heard of a preciseby similar case in the practice of another physician in this city, last week.

The *New York Medical Journal*, Oct., 1870, contains an article by me entitled "Embolism in its Relation to Disease," in which I record a case still more strikingly illustrative of the insidious

and uncertain nature of diphtheria. In this instance, a young lady aged seventeen, was apparently out of all danger and had ceased to be a source of anxiety to her friends, but yet she died instantly of embolism of the heart, after walking across the room.

These two cases which I have related are, however, probably not analogous in their nature; in the first, death resulted from syncope induced by suspended heart-action; in the second, death was due to mechanical obstruction, brought about primarily by fungoid deposits upon the valves and endocardium, which through accretions of fibrin finally resulted in fatal embolism In the latter class of cases death is not always sudden, as there may be symptoms of crippled heart-action continuing for some hours prior to dissolution. Neither are these cases analogous in another and eminently practical point of view, for we are impotent to do much towards obviating or relieving lymph deposits upon the cardiac valves in the midst of such a rapidly destructive disease as diphtheria, but we have it in our power often to avert a calamity from fatal syncope.

Pathological changes take place very rapidly in this disease, and we know that the muscular structure suffers prominently, especially certain groups of muscles. First in order come those of the palatine arch and pharynx and such others as are immediately contiguous to the primary seat of disease. The muscular structure of the heart is seldom free from destructive metamorphosis, whereby the action of this organ becomes greatly enfeebled, as is indicated by the pulse which is rapid and weak, or else slow and weak, with or without intermission. According to Oertel and others, these changes in the muscles are always more marked in proportion to the intensity and length of time the disease has continued. "When the general diseaese lasts long and is very intense and especially in cases where sudden death is caused by paralysis of the heart, the muscle appears pale, soft, friable, broken by extravasation of blood and on microscopical examination most of its fibres are seen to be already in an advanced stage of fatty degeneration." Since this is the case it behooves us to be on the alert and as far as possible to guard against such fatal results as I have related. I am always careful, therefore, to take no chances and never allow a patient, in the latter stages of diphtheria, especially when there are evidences of great debility, to exert themselves or to assume the upright position. It is even dangerous to allow children to struggle, as is often the case, while we are applying local remedies and for this reason it is well, as far as practicable, to employ such topical applications as are least calculated to provoke strong muscular resistance on the part of the patient. For apart from the consumption of strength which such struggles involve, there is the graver danger of sudden and fatal syncope, such as I have described. Unfortunately this disease is peculiar to that time of life when patients are least disposed to listen to reason or to sub-

mit quietly and patiently to local treatment. But of one thing I am convinced, and that is that there is no local remedy of such paramount and specific importance as to justify a desperate fight with a young child every few hours, simply for the sake of routine.

As those who have had abundant opportunity for practical investigation and who may be regarded as expert microscopical authority, cannot agree among themselves as to the precise pathological nature of diphtheria, it is clear that the practicing physician should pursue a conservative policy which, holding fast to that which he knows to be good, he should avoid being led into extremes by every dogma or pausible theory which presents itself.

Ten years ago, Hueter, Oertel, Nassiloff and others of the German school, presented to the profession an apparantly satisfactory theory of this disease, founded upon the doctrine of certain specific *bacteria*. The doctrine of bacteria was exceedingly simple and seemed to fulfill all the requirements of the case; it brushed away at one stroke all doubts as to the etiology, diagnosis, treatmont and sequellæ of this dreadful scourge. The micrococcian theory effectually lifted the shadowy veil which had previously enshrouded this malady and placed it in the full glare of scientific light; every phase and symptom of the disease was made to dovetail with the bacterian idea and to the credulous practitioner, was left the comparatirely simple task of detecting and pursuing these vegetable parasites from the beginning to the end. We had the diagnosis and the treatment in a nutshell as it were. Unfortumately, however, neither clinical experience nor subsequent microscopical investigations, have confirmed the truth of this exceedingly plausible doctrine and we are probably as much in the dark concerning the essential nature of diphtheria to-day as we were a quarter of a century ago.

It is certainly a great misfortune for practical medicine, that the specific germ theory has not panned out as it was originally promulgated by Hueter and Oertel. If it were indeed true that the diphtheretic deposit always conains micrococci of a peculiar pathognomonic character, what a relief it would be to our profession! But, as it is, everything is uncertainty in the incipient stages. In a majority of cases the diagnosis of no disease is more unsatisfactory than that of diphtheria in the very beginning. In a few very malignant cases the characteristic membrane appears at the very start or at least as soon as the attention of friends is excited, but as a rule we know that the characteristic features of the disease declare themselves after one or more days sometimes minch later than that. In the meantime I know of no method by which we can do more than surmise what the the case will probably turn out to be. While I am by no means prepared to declare that we cannot have genuine diphtheria without a membranous deposit, I am

equally certain that many cases have been pronounced diphtheretic when there was no such disease present. This is one of the instances in which a physician may be honestly deceived and I regret also to say that I believe it is a case where a great many confiding parents have been *dishonestly* misled.

There is scarcely a single fact laid down in the text books in regard to this disease, to which in practice we do not find numerous and note worthy exceptions. For instance, while it is most natural to suppose that filth, sewer gas and other impurities play an important rôle in the etiology of this affection, it is also a fact that some of the most deadly epidemics have prevailed in the most salubrious rural districts. At this very moment, this disease is prevailing to a most alarming extent in that beautiful, wel drained, high and dry region along the eastern foot hills of the Blue Ridge mountains in Pennsylvania, and here as elsewhere this grim monster knocks not alone at the door of the lowly hovel, but with impartial tread enters likewise into the stately well-kept mansions of the rich. The theory of contagion and of local impurities cannot be made to cover all cases and we might as well acknowledge the fact at once and be done with it.

The members of this society who went by way of the White Sulphur springs to attend the meeting of the American Medical Association at Richmond, several years since, will remember the beautiful panorama which gladdened the vision as they emerged from the eastern end of the tunnel in the Blue Ridge. As far as the eye can reach, there is a picturesque combination of hill and dale. Being myself a native of that region, I speak what I know to be the case, when I say that there is scarcely a farm in all that country which is not naturally drained by one or more rapid, clear streams. There are no marsh lands or bogs and such a thing as malaria is unknown. In many of the western states, a farmer is boastful of a single bold spring on his premises but in the district to which I allude, there is no field without its running brook of live, fresh water and scarcely without one or more cool perennial springs. The farm houses are usually located upon the summit of a hill and where they have cellars, they are almost necessarily dry. In that country the kitchen is usually in the basement, which is thus kept well ventillated and much purer then when such apartments are simply used as storage rooms and opened occasionally at brief intervals during the week. Taking everything into consideration, one would suppose that such a region would be comparatively exempt from diseases supposed to be dependant upon zymotic influences, and yet within my recollection there is no district of country in the United States, which has been more scourged with diphtheria and typhoid fever than this. I merely state the facts and confess that I have no explanation to offer which would at all harmonize with the generally accepted theories of the etiology of these diseases.

DISCUSSION.

DR. WESSELER.—I would to like to ask Dr. Coles if a great many of those residences are not situated upon the hills, where the people occupy basement rooms and live in the basement with one dead wall in the mountain?

DR. COLES.—I know there are some residences so situated, but I am not speaking particularly of that country just right at the mountains, where the hills are precipitous and steep; I am speaking of the whole general region reaching as far as South Carolina. The country is generally rolling and very hilly. The disease is prevailing in this country as I understand. The disease does not seem to respect persons at all. It attacks one family as soon as another. Families living in the country are more or less isolated. Persons who are familiar with that country and the residences of the better classes, will know that they are remarkably cleanly. They take up their carpets in the summer time and keep their floors well scrubbed; many of the houses are of frame with large open fire places; where the houses are of brick, the windows don't fit anything like as tight as they do here. They burn wood in this country and the cellar is used as a kitchen, with the air passing in and out all the time; there is generally a good draught all through the house. We couldn't imagine a place where we would expect to find impurity or bad air.

DR. BRIGGS.—Thinking that some facts might be of interest, I went to the Board of Health and made inquiry in regard to diphtheria. I was informed that there was more than there had been in this city for at least six years, but that the Board of Health didn't consider it epidemic. I was told that the districts where the disease occurred most, and I suppose they estimate the number of cases from the deaths that occur, were in the sixth ward. The limits of this ward, I think are, on the south, Webster street, and on the north, North Market Street; Broadway is about the center of the ward; this is the section in which the most cases occur; then going west, we have the fourteenth. Then the next ward along the river, north of the sixth is the eighth, and the ward west of that is the sixteenth, I believe. I asked about scarlet fever and they said there was very little of it; and we are free from the epidemic of small-pox, which caused us so much trouble last winter. In my own district, in Stoddard Addition, about 28th and Olive, I have seen no diphtheria at all.

DR. DEAN.—I quite agree with Dr. Coles in regard to the etiology of diphtheria; that is, that we do not positively know very much about it. On the other hand, the pathological anatomy is much better understood; and our clinical knowledge might be

very much helped by a better understanding of the latter than seems to be had by many clinicians who claim to be able to always distinguish readily between croup and diphtheria affections, having no patho-anatomical difference, at least so far as the mucus is concerned. These diseases affect the mucous membrane of the alimentary and the respiratory canals at and in the neighborhood of the crossing of these tubes. The anatomy of these canals, from below, as regards the mucous membranes, is pretty well maintained above the crossing and, of course, the pathological anatomy corresponds. Commencing at the nostrils, just beyond the cartilaginous portion of the nose (which part is covered with pavement epithelium) and not mentioning minutely the muciparous glands, lymphatic vessels, blood vessels and elastic tissue, etc., but only the characteristic epithelium, the Schneiderian membrane is lined with ciliated epithelium until we reach the olfactory region with its peculiar nerve distribution; and the lachrymal sac and naso-lachrymal duct are also lined with ciliated epithelium. Beyond, again, the superior or respiratory part of the pharynx is lined with ciliated columnar epithelium and the Eustachian tubes and the tympani are lined with laminated, ciliated epithelimm, except the tympanic membrane, which is covered with laminated pavement epithelium. Skipping the crossing of the alimentary canal to the attachment of the epiglottis, we find this part, posteriorly, covered with ciliated cylindrical epithelium, and so, also, the top of the larynx, the false cords, the ventricles and all below the true vocal cords, *i. e.*, the remainder of the larynx, the trachea and the bronchi—the true vocal cords, alone, being covered with pavement epithelium and having no muciparous glands. The mouth, soft palate, uvula, fauces, tonsils, base of the tongue, aryteno-epiglottidean folds and epiglottis (except posteriorly at attachment) and the posterior or alimentary portion of the pharynx and the œsophagus, to the cardia are covered with laminated epithelium. The inflammations of mucous membranes are usually catarrhal. Commonly, no such plastic matters are thrown out as we find in serous cavities or serous surfaces—but sometimes fibrinous exudations are deposited on mucous membranes, and these exudations are anatomically called croupous or diphtheritic, according to certain characters they possess; and these characters depend upon the structure of the mucous membrane on which they are formed, and, to a large extent, upon the epithelial structure and upon conditions or changes peculiar to the particular epithelium; whereas, the purely clinical names designate the two forms diphtheritic, in alleged diphtheria, and the same two forms croupous, in alleged "membranous" croup. Pavement epithelium is the favorite foundation for the diphtheritic exudation. Croupous exudations rest upon the epithelium or upon the basement membrane; but diphtheritic exudations penetrate or affect the underlying tissues also. Diphtheritic exudations may also

arise in spots, from coagulation, necrosis of the pavement epithelium and then extend or spread over the epithelium. Croupous exudations are, therefore, usually more easily removed and leave a smoother surface, and diphtheritic exudations usually leave ragged denuded surfaces, though occasionally the *overlying* portions may come off more smoothly. The diphtheritic exudation adheres with especial tenacity upon the vocal cords and upon the epiglottis when formed there, the cord having no muciparous glands, and the epiglottis being bare and the covering thin. All know that I have been studiously inclined to the germ theory of disease, and I expect it will some day be proven to be the cause of more diseases than are now called zymotic; but I think it is not established, with any positiveness, as the cause of this disease. Micrococci, bacteria and other micro-organisms are formed in abundance in dipytheritic exudations; but the region of this exudation at the crossing of the alimentary and the respiratory canal, is one very favorable to putrefaction once begun. Air, warmth, moisture, necrosed tissue, mucus, pus, adherent particles of nitrogenous and other food, etc. are present. But it seems to me, begging the question, to make this an argument for or against the theory, until cause and not coincidence is shown. But again, the micrococci are not found in the croupous exudation below the vocal cords, except when lodged as foreign matter; and this, it seems to me, is an argument against the germ theory, It has been suggested that micrococci do not find lodgement there because of the active cilia, or because of the higher order of these cells, and because of the destructiveness of the expired carbonic acid which is injurious to these micro-organisms. Though contagious like measles and scarlatina, it is said to be more inoculable than they, from man to man. I have no doubt that many cases pass as diphtheria, and also that shades of difference in this disease are often used by physicaans to distinguiah as between different diseases, and that many cases during epidemics of the disease, pass as simple catarrhal angina, when they are really mild forms of diphtheria, not manifested by fibrinous exudations. A catarrhal condition is very prevalent, so far as I know and have read during every epidemic of the disease; and it is hardly fair to call it a predisposition in one case and a part of the disease in another. I do not know how it is in this particular epidemic—if it has gone so far as to be epidemic—I would like to hear concerning this, from some of the physicians who live in the districts where this disease is most prevalent.

DR. BERNAYS.—I was very much interested in Dr. Cole't paper, and I think that the view taken by him, that we have not succeeded in establishing clearly, the cause of diphtheria, is correct. We don't know the cause of the disease. We know that is is a development of a membrane on a mucous surface, which membrane has a basis of fibrinous matter in which are found

millions of bacteria or micrococci. The question comes up, first, whether the disease is epidemic or not. We know it is contagious, but we cannot say it is always epidemic. We often have a chance to see a case in a rural district—an isolated case of fatal diphtheria, and that would tend to prove that diphtheria is not necessarily epidemic or dependent upon a peculiar state of atmosphere, but that it was perhaps caused by a specific poison. The theory has not been touched upon to-night, that diphtheria is caused by a peculiar bacterium found in milk. Not more than two years ago there was an epidemic of diphtheria in Denver and it was traced to a certain dairyman; and I think it was pretty fully established that the diphtheria was caused by the milk which was supplied by the dairyman.

DR. JOHNSTON.—Did it affect the older persons as as well as the children?

DR. BERNAYS.—I think it was confined to children. Right here I want to say that there is one great point that we ought to urge upon our patients and the public generally, and that is that is that no healthy child can possibly take the diphtheria. It is absolutely necessary that it should have a cold in order to contract the disease. We see this frequently illustrated. One child in a family has diphtheria, another child in the same family who is perfertly healthy does not take it, but still another child that happens to have a slight cold—a slight catarrh, becomes infected and catches the diphtheria. Some will say that this is erroneous, because they will claim that the cold is only the first symptom of diphtheria, but this is wrong, I do not think it is possible. We know that the diphtheritic poison—a piece of the diphtheritic membrane may be placed in the eye of a healthy person and no diphtheria results; whereas, if the person has the least bit of catarrh, if there is the least pathological change and the poison is injected it will ruin the eye. I was reading before I came here to-night, from recent statistics in regard to diphtheria, and the statistics showed that out of 598 cases, 508 terminated fatally. This observer is a thoroughly educated physician and not a man who might be possibly mistaken about the diagnosis of diphtheria, and those figures, as he gives them, are undoubtedly correct and they are not taken from a single epidemic, but from a number of epidemics of different severity, so that this will give us a general idea of the fatality of this disease. I heard a gentleman get up in this society two years ago, and state that he had treated 150 cases of diphtheria in his life and had not lost a single one. Some of the gentlemen will remember the statement. It is needless to say that the gentleman evidently did not know what diphtheria was and allowed that term to take in a large number of throat diseases, in fact, he probably never had treated a case of genuine diphtheria in his life. Genuine diphtheria such as we are having in North St.

Louis at the present time, is a most fatal disease. I have known an apparently healthy child, with the exception of a slight cold, perhaps, to die within twenty-four hours after the disease. I think that practitioners ought to be very careful in making a diagnosis and in calling every little trouble of the throat, diphtheria; as it tends to produce an erroneous impression among the public and if any of us loose a case, the people are dissatisfied and point to the twenty-five or thirty cases that Doctor so and so boasts of having cured, or perhaps they mention a case that we ourselves have cured.

DR. MEISENBACH.—Without reiterating the facts in regard to the pathological condition that is present in diphtheria, I will relate a few practical cases. Last November, this November a year ago, it was my opportunity to observe a case similar to that related by Dr Coles. The patient in this case belonged to the lower class and the hygienic surroundings were not the best. The first case in the family was a little girl six months old; she recovered. Then a boy was taken who had been apparently well; he was taken a few days afterward and in my opinion it was a very slight attack. I saw the boy only once or twice and prescribed the necessary treatment. The mother reported to me that he was doing well. I did not see him for a week, when one morning the mother brought the boy to my office and I saw at once that there was something wrong. The countenance of the boy was pallid and there was an anxiety depicted on his face that I had not often seen. The mother told me that the boy complained of very severe pain at the pit of the stomach. I examined the boy carefully but found there was no pain on pressure. The pulse was very rapid; the mucous membrane of the pharynx was glazed, such as we often see after diphtheria has passed away. I knew at a glance that there was something very severe the matter with the boy; I examined the heart. There was no murmur, yet the heart-action was rapid, what I would call neuralgia action. I prescribed for the boy and saw him for three days. His condition got rapidly worse, the anxiety increased and the rapidity of the heart's action continued. I gave enemata, stimulants and nourishment in sufficient quantities as I thought to sustain life, but in three days the boy was dead and the cause of death was heart clot. Another case that I would like to relate, occurred more recently and this relates to the subject of the difficulty of distinguishing between diphtheria and membraneous croup. This boy also belonged to the lower class. It was, in my opinion, a slight case of diphtheria. The fever had not run high and there was a thin exudation on the pharynx. The boy was doing nicely, getting better. I had not seen him for a few days when I was summoned to him and found him very much worse. At first the symptoms were not different from those in ordinary diphtheria, but when I came to see him this time the boy had a violent cough and it was a croupous

cough and from that time on, there was presented symptoms of true membranous croup. Before this there was no spmptoms by which I could distinguish that condition. After the relapse there were symptoms of true membranous croup; and the idea occurred to me that it was very difficult to distinguish, if there is any difference between diphtheria and true membranous croup. As far as diphtheria is concerned, we know that there is no locality that is free from it. It was my fortune, until three years ago, to practice in the country. At that time diphtheria was prevailing in Belleville, Ill., and it was a very severe type. I was practicing in a town ten miles away, where the sanitary conditions were as bad as they were in Belleville, if not worse and there I saw only one case and that was imported from Belleville and the attack was very light. So we see that there is no region of country and we know that there is no condition of sanitary arrangements of a village that will protect against the ravages of diphtheria. We all have our notions about the disease and some of them are quite contrary, but I do not want to speak of these, I merely want to present these cases.

DR. SCOTT.—I came to listen to-night and not to talk, and in fact I am not prepared to talk to-night, not upon this subject. As you know I cannot think upon my feet, I must do my thinking before I get up. I have seen several cases of diphtheria in our end of town. I saw one case that proved fatal very rapidly; it seemed as if the patient was completely overcome by the poison in a very short time; the patient died probably in twenty-four hours after I first saw it. Of course, there was a membrane formed over the uvula, fauces and palate. Another case that I saw, of which the case reported by Dr Coles reminds me, was one in which the little patient was convalescing and I felt very much encouraged in regard to it, because it was going on so well and without any trouble. This little fellow raised up in bed, one morning after a pleasant night's rest, which he had not had for several weeks before, and after asking for a drink of water, he fell back in bed and was dead in a few minutes. He complained of pain in the stomach but I think if he had been able to locate the trouble, it would have been found to have been in the heart. I have taken some pains to ascertain somethtng about the hygienic condition of the neighborhood and I must confess that the hygienic regulations, according to my notion of the thing, was not exactly what it should have been in many of the cases which I have seen. I have not seen so many cases; I have seen several which have been located in squares or portions of squares which are filled up in the way I mentioned. There is a row of houses upon the street proper, and directly back of this upon the alley there is another row of houses. Each of these rows contains six or eight houses and there are two families in each house, one upstairs and one downstairs. In the center of this there is a court and in this court there is a well and near

this well are from four to six privies which are used by all these families. I believe that is about the condition of affairs. This is the condition of a great many houses in our part of the city.

In treating diphtheria, I am in the habit of giving small doses of calomel and bicarbonate of soda. I tried this plan of treatment five years ago in my cases of diphtheria, and was very successful. I have used preparations of iron as local applications; and when the patient's strength was failing, I used iron and quinine. Now, sir, in regard to the question asked by a gentleman a while ago, as regards the difference between diphtheria and croup, I know there are some in the profession—some English authorities who do not recognize any distinction between the two diseases—who do not make a differential diagnosis: but to my mind the distinction is as great as that between scarlatina and small-pox, or scarlatina and measles, and to use the expression of Bumstead in regard to another disease, I believe that in diphtheria the formation of the membrane upon the throat is but the local manifestation of a general poisoned condition of the system. I believe we always have prodroma for several days before the local manifestation. The little fellow is fretful, peevish and feverish. He sometimes complains of pain and headache; The feeling is expressed as one of malaise. In a day or two afterwards when you are called to see the little fellow, the mother probably will ask you to examine the throat and you find a diphtheritic membrane. This is the case with all blood diseases and it is not the case with local disease, I believe. In diphtheria there is a membrane formed and not an exudation. Then again, diphiheria is a contagious disease—highly contagious and membraneous croup is not. We frequently have sequellæ of diphtheria and we do not with membranous croup, so far as I know. Diphtheria often prevails as an epidemic; membraneous croup never does. These are some of the points of differential diagnosis.

SATURDAY, Dec., 9, 1882.

Cancer of the Œsophagus, Cirrhosis of the Liver, etc.

DR. LUTZ.—I have a specimen here the clinical history of which Dr. Wesseler will detail. The doctor asked me to make a post-mortem of the case which had been under his care. He said to me: see what you can find. This man, besides the pathological specimen which I show here had a double hernia of very long standing—a double inguinal hernia on the right side. This hernia consisted of a portion of the small intestines that was firmly bound down in the sac by very old adhesions that could not be torn off, necessitating the feces making a circuitous route for many years. On the left side he had a hernia also, and this consisted of the omentum which was pulled into that corner.

Omentum was firmly bound in the sac. He had evidently never worn a truss of any kind. Besides this, the man had one of the most marked specimens of hob nail liver that it was ever my fortune, or rather misfortune to see in a dead subject. I understand that he was employed in the family of a brewer and was evidently a hard drinker, at least for some portion of his life. He was quite an old man. Upon opening the abdomen I found the stomach presenting a very peculiar shape. It had shrunken very materially—so much so that the cardiac end of it, which you see here, was about three inches in length, (The specimen is serunken somewhat.) and at the pyloric end it was not wider than an inch and a half—possibly not more than an inch, and the rest of the stomach was shrunken in proportion. On the removal of the diaphragm I found in the lower portion of the œsophagus, just at the entrance of the stomach a cancerous growth which had two openings in it, one was the normal opening, this admitted a blow pipe to about the middle portion. Then through the cancerous growth itself, there was a second opening of about the same width. There was no glandular involvement of the mediastinum, or the neck, nor was there any glandular involvement of the abdominal lymphatics. The stomach itself was completely empty, as were the lower bowels. Nothing in the stomach except a very little mucus. The valve of the pyloric extremity was intact. There was no involvement of any portion of the stomach except the very entrance of the œsophagus into the stomach itself. Another feature about the case was the presence of calcareous concretions, and I was told that a number of times he spat up what he said was coal. I found one of them in the mediastinum an inch and a half long and half an inch in thickness. I found a number of others, smaller, and throughout the lungs and bronchial tubes there were a number of such concretions. I asked the doctor when I got through making the post-mortem why he had not diagnosed this earlier? and he said that he was afraid to make a diagnosis, for fear I would want to operate on the man. Well, I will say after making the post-mortem it was certainly not a case to perform gastrostomy on. A man of his age with the condition of liver which he had, was certainly better off to die than to have an attempt made to continue feeding him, with any kind of success by means of artificial gastric fistula.

By a thorough examination of the abdomen we would probably have discovered that he was not a subject to operate upon. The doctor will give you the clinical history of the case. If you will indulge me one moment while I am on this subject of stricture of the œsophagus, I will relate a very unfortunate case that came under my observation about three weeks ago. I was consulted by a mother who brought her child which was four years old to my office, and said that it hadn't been able to swallow well for five months—about five months ago it had taken co ncentra

ted lye; she took the child to a druggist who gave her some mixture to give to the child, besides telling her to give it some vinegar, milk, etc., and the woman went home and treated the child in this way. Once she consulted a physician who prescribed for the child, and told her the child had some stomach trouble; now she said the child was not able to swallow any thing. It constantly cried for water while in my office, and I saw that it took water in its mouth, and keep it there awhile rinsing its mouth and gargling the throat and then spat it out. The child was extremely emaciated. I concluded from the history of the case and from what I saw, that there was a stricture of the œsophagus, and I introduced an œsophageal sound. By careful examination I found that when the child swallowed a little water, about the tenth dorsal vertebra there was a gurgling sound, this was when it swallowed water—it swallowed a very little. I concluded that besides the constriction of the throat at the upper part of the œsophagus, there was a second stricture further down. I succeeded in introducing a number 16 œsophageal sound and immediately the child swallowed some water. I then gave directions to have it fed by the rectum—ordering beef tea and milk to be given by the rectum, and I also ordered it to be anointed with olive oil every night and told the woman to return to me in two or three days. Well, she came back and said; doctor I believe my baby is getting well; it has been swallowing now for three days—it has been swallowing liquids all the time, but I notice that it does not swallow quite so well. I wish you would come to my house and introduce that instrument again. I think that that will cure it. I had suggested the propriety of performing gastrostomy on the child and she gave her consent, provided nothing else would help the child. I went after three days and introduced the same sound, that I had previously used; I did not try a larger number. On the fifth day I called again, because the child had difficult swallowing, and again introduced the sound, and the child in my presence drank perhaps a pint of milk, and it was rapidly gaining in flesh. I could see that the child was gaining. I left the house at about five o'clock in the evening, having given strict orders not to give the child any kind of solid food. After I was gone some time the mother gave it some bread, it chewed it and tried to swallow it and then became black and blue in its face. They sent for me but when I got there the child was dead. It seems to me that some of the bread got into the larynx and suffocated the child. Unfortunately I could not get a post-mortem. Now this case demonstrates, of course, how very much can be done in cases of traumatic stricture of the œsophagus by cathereization. The number of cases that have been relieved in that way is very great. Some years ago Dr. Fairbrother of East St. Louis reported a case of traumatic structure of the œsophagus treated by the introduction of bougies, but in this case I believe it would have been just as wise a plan to

have performed gastrostomy on the child and to have kept up its nutrition in that way and at the same time to try either through the gastric fistula, and fistula through the œsophagus, or through the œsophagus alone and introdnce the bougie. Perhaps the lower stricture could have been better catheterized through the gastric fistula. The first case of gastrostomy that was performed, resulted in a good recovery; it was a case of traumatic stricture, and the operation was performed by Trundelburg and reported some years ago in the *London Lancet*. Of course there is all the difference in the world between an operation of gastrostomy performed to relieve traumatic stricture, where you intend a subsequent operation to close the gastric fistula, and the other kind of cases in which the operation is performed simply to prolong the life of the patient and cases of chronic neoplasm of the cardiac portion of the œsophagus. You will remember the patient upon whom I operated some two years ago and who was kept alive for seven months in that way.

DR. WESSELER.—As the doctor stated I asked him to make a post-mortem and see what he could find. This man came under my care about four months ago; he was apparently able to be about, but complained of loosing his strength. He was 70 years of age. He had been a brewer by occupation formerly, but of course in his older years he had not done much, he was a sort of trusty around a man's house and had little to do, but was at liberty to take as much beer as he chose. He worked for a brewer. I suppose he had always drank more or less and his digestive organs were giving way. His food wouldn't stay with him; he complained that the beer wouldn't stay down, and I suggested that he should drink wine, which he did for awhile, he always had a supply of bottles on hand; but he had to drink very slowly; it took a long time to go down. He was a very good natured old man and would say: I am not very well satisfied with you; I think you ought to give me something to make my food stay down. With all my treatment of giving anti-acids which was certainly indicated in this case, it was an impossibility to do much good; the anti-acids were not able to restore the stomach. I gave him purgatives occasionally. One day when I came to the hospital I found he had an expression of anguish, he was breathing very rapidly, his extremities were cold, and upon examination I found that there was an impaction of the bowels. His feces had accumulated in the rectum, there was a distention and an inability to discharge the contents. I had to take my fingers and scoop out a chamberful of feces. This relieved the old man very much. I think he would have died if he had not been relieved. He then received injections and improved so that he again reached his normal condition. For a month or more before he died he began spitting up dark looking calcareous concretions. For the last three weeks I have told the gentlemen who called there to go around with me that there

was an obstruction of the œsophagus. I was satisfied of that; although the man had other symptoms—symptoms that there was a disturbance of the liver. I was satisfied that there was a stricture of the œsophagus because he was all the time complaining that his food was coming back before it entered the stomach. He did not vomit. The post-mortem was very interesting because it revealed a condition of the liver which was not recognized during his life. While I suspected that the liver was somewhat atrophied I did not expect to find this roughened condition. The post-mortem was interesting in the other respects that it showed the man to have had a double hernia and the sac was adherent—all the contents were firmly adhered to the sac. One side contained the bowels and the other the ometum. This is all that I can say in regard to the post-mortem. I think it makes very little difference in regard to the diagnosis whether we call it ulcer, or cancer, or catarrhal affaction so far as treatment is concerned, it amounts to the same thing; if the food is returned the man will die of starvation.

DR. BORCK.—In regard to the specimen, I would say that I heard it remarked that the opening in the cancerous growth was made. I don't think that opening was made by any process of food passing through, but I think it was kept open and never closed. If it had been closed and made afterwards the patient could not have swallowed. I think nature left that opening, or it was kept open by the passage of food which the man continued to swallow; that it was never completely closed, and therefore we see that it was nicely arranged.

DR. WESSELER.—If you look closely you will see one distinct opening to the left and another through the neoplasm.

DR. BORCK.—There must have been an opening through it which was never closed; if it had been completely closed the man could not have swallowed.

Diptheria.

DR. WESSELER.—Mr. President, to continue the discussion of last Sasurday night, which I am sure every physician is interested in, I have prepared a short paper which I will read.

The paper on Diptheria read dy Dr. Coles at our last meeting calls attention to a disease which, unfortunately, by its prevalence possesses deep and general, as well as professional interest; and that few diseases are more dreaded than this, is undoubtedly owing to the fact that few are so steadily fatal. That it is of zymotic origin none will dispute. How it differs from membranous croup was well stated by Dr. J. M. Scot whose views I fully indorse. That the hygenic surroundings have much to do with producing the disease I firmly believe; while the statement that a healthy person cannot become a victim of this or any

other zymotic disease was made in this Society eighteen months before the "advanced" statement of Dr. Bernays was given. If the doctor will read the proceeeings of this Society, especially of April 23d 1881, published in the July number of the SAINT LOUIS MEDICAL AND SURGICAL JOURNAL of that year, he will probably amend his "advanced" statement by striking out the word "advanced".

During the discussion of cerebro spinal menengitis I took the position that the primary cause of diptheria, small pox, scarlet fever or cerebro spinal meningitis were one and the same, that a healthy individual would not be attacked by the poison, but would be able to throwit off, which position I still maintain. It matters little what form the disease may assume, whether it be a low grade fever or an exanthematous fever; whether it be cholera, dysentery or yellow fever, the original cause is the same with the addition of local or atmospheric influences. Deaths occur among children when none of these influences are at work, but when people occupy such premises as were described by Dr. Scott, at our last meeting, the wonder is that any should survive. The reason why well to do people are not exempt from this class of diseases may possibly be found in faultily constructed houses, with damp basements which are utilized as kitchen and dining room. The walls of these rooms are always damp. If the lot is below grade, filled on the "free dump" system, with a pond of filthy water in close proximity, you have all the conditions favorable to the development of these of diseases. But there are cases occurring among our best families in the best improved part of the city, yes, but may not these modern conveniences contribute to the mortality list; are no defects to be found in the basement? Then the upper rooms must be looked after. The sun is not permitted to enter for fear of fading the carpets. The sleeping rooms are supplied with bath room, water closet and stationary wash stands, which keep up a circulation of air with the main sewer. Delicate beings require but little of this sort of poison to carry them to the grave yard. The country although not troubled with sewer gas and other city filth, does not escape from these diseases. Houses built on the hill-side with part of it in the ground, generate probably as much malaria from their damp walls as would be the case in the city. If the house is not at fault, the surface drainage and water snpply should be carefully looked after. The washings of a barn yard may enter the well without being suspected. During a freshet much impurity finds its way into the water supply even in St. Louis, why should not such be the case in a monntainous country? The sea must certainly be free from all these objections, but I must remind you that when the discussion was going on in regard to yellow fever it was charged that yellow fever had originated on board of ships while on high sea. Recently a ship arrived in New York that had lost eleven of its

little passengers, by diphtheria. It is a very common thing for small pox and typhus or ship fever to originate on board the ships. The fact remains that wherever we have bad air or malaria, there we have zymotic diseases.

On a former occasion I expressed myself in opposition to any antiphlogistic course of treatment. Our main stay and sheet anchor is quinine. The diffusable stimulants should not be neglected. Some four years ago I gave a tablespoonful of whiskey every five minutes to a 17 yrs. old patient, with the happiest result. carbolic acid and salicylic acid have claims and should be given a trial. chlorate of potash or bi-carbonate of Soda with 1-8 grain calomel may be given when indicated. But it matters little what we give to a patient that is dying. When the whole of the circulating fluid is in a gangrenous condition our remedies avail nothing. The question ought not to be how to cure this terrible scourge, but how to prevent it. If the unlimited powers possessed by our board of health were judiciously exercised by a medical man, much good might be accomplished. Filthy tenements and basements ought to be condemned. These pest-breeding places ought to be anihilated. The poor are above all, the people that can least afford to be sick; and it is to the interest of every citizen and tax payer that the poor are provided with healthy houses. If they continue to occupy unsanitary premises they add so much material to be distributed and often infect the entire community. Let the public be educated to the necessity of having plenty of fresh air and plenty of sunlight in order to have good health. Let us reduce the number of these infectious diseases by reducing the number of the pest breeding tenements. Let every locality from which deaths from infectious disease occur, be investigated in order that the cause may be ascertained. If this will be done as it ought to be by city, state and national board of health, I am satisfied the number of deaths caused by infectious disease will soon be diminished.

DR. STEVENS.—I had prepared a paper on this subject, to read this evening but as Dr. Wesseler has read a paper I will read but a few pages of mine if agreeable.

The doctor then read a portion of his paper as follows:

In the discussion on last Saturday night which followed the reading of Dr. Cole's interestig paper devoted to some questions about diphtheria. Dr. Bernays stated that this disease never attacked healthy individuals. The theory as he elaborated it being, that before the specific cause of diphtheria could enter the system, or fasten itself upon any structure or tissue, there must be in ex stence some other morbid condition, or some departure from a state of health. The idea in such broad terms seemed to startle his hearers, and the question was asked—"Will you say

the same in relation to measles, scarlet fever and the zymotic diseases"? He said yes! and further claimed that the principle is a new one, as far as its general application is concerned; that the theory belonged to advanced knowledge. In some views on the subject he claimed originality.

If this proposition is true, and will bear the test of scientific examination, it is manifest that its value and importance, both to the profession and the community, cannot be estimated.

As to whether this principle is entirely new, or heretofore unrecognised there may be some question. When we take into consideration the full import of such terms as "predisposing cause," "Hygenic measures," "constitutional tendencies," "susceptibility" "hereditary transmission" ect., we find that we have in a measure unconsciously adopted the theory in question. Take for example cholera, how careful are we, not only for ourselves, but for all within our influence, to prescribe the utmost care in the regulation of all physical functions, even more, the necessity of controling the emotions, especially fear. But even if we have in a measnre admitted the truth of the doctrine, this does not detract from the merit of any one who may discover in its philosophy a grand central idea, around which, and dependent upon which other ideas may revolve. In the brief period which has elapsed since the discussion, I have not had time and opportunity to examine with satisfaction the tendency of this question, but facts apparently go very far to certify the theory or something akin to it. Take any one, or all the diseases commonly designated contageous or those which prevail as epidemics, and which strike terror to the hearts of our people, for instance, the one already mentioned—cholera; it sometimes decimates our population, but the fact remains, that of the vast numbers of those exposed to the specific cause, whatever that may be, the great majority escape. This can be no mere accident, or freak of good fortune.

During the prevalence of the disease in this city, I manipulated the scalpel in several autopsies with perfect impunity, my hands saturated with the fluids of the cavities, and my lungs inhaling the effulvia from diseased structures. It is not reasonable to assume from such, and many other facts that there is some condition, some conservative force resident in the physical system rendering it invulnerable to the morbific poison, and does it not appear equally probable that there is another condition, in which as a consequence of some discrasia, the microscopic germ or atom, animal or vegetable, finds an unprotected point and so gains an entrance to the citadel of life. In regard to this, some may perhaps assert that the theory is nothing new, still it becomes the duty of the philanthropic and sagacious inquirers who claim, that, *invariably*, certain diseases are secondary to others, to show the fact, and then to designate and classify and formulate the prineiples so as to render the doctrine or theory

tangible and practicle. Then indeed will the investigator be, *par excellence* a benefactor.

DR. PORTER.— It is no longer a theory that diphtheria is most readily engrafted upon diseased surfaces. The position is not new; although it seems that many of our members have thought so, but this theory has been recalled to the attention of practitioners of late. That the disease is engrafted most readily where there is already some lesion of the mucous membrane. Believing that diphtheria is a disease of local infection, first the germ is implanted upon the diseased membrane, and possibly at this time escaping the notice of the patient or his friends, afterwards a systematic infecton, occurring in one, two or sometimes more days, depending upon the condition of the system and the readiness with which it adsorbs the poison, and the further occurrence of the membrane upon the already diseased surfaces. Following out this line of thought, we have the symptoms of the disease in the correct order. If we begin with the systemic diseases we are sometimes at a loss; if however, we estimate them from the local infection, and that there is afterwards a general disease—a systemic poisoning etc., we can account for all of it. Regarding the readiness with which this poison may take effect, I have acted very carelessly with the disease; I have knelt over a case of tracheotomy, I have inhaled the breath and have acted very carelessly and have recieved no injury until last spring, when a gentleman from Philadelphia returning from a trip to Texas was arrested in this city by suffering from diphtheria. There was no doubt as to the nature of the case. I was suffering at the time with pharyngitis myself but thought nothing of it; within a week the diphtheric membrane appeared over the site of the local irritation in my own throat. Now this bears out the idea that a local irritation of the mucous membrane predisposes to infection as a local irritation or an abrasion of the skin tends to promote the absorption and opens the way for the empoisonment of the system. If time would permit and it were not for the reproach that is constantly thrown at us by the secular press that the members of the profession disagree (and they do not disagree as much as they are supposed to) I would like to say a few words in regard to the treatment that has been suggested. I do not believe that quinine is a *sine qua non* in the treatment of diphtheeia. We ought to treat each case upon its merits. I would no more readily give quinine in a case of diphtheria in which, after the first excitability, the temperature had gone down, as we all know it does so often, and we know what that portends—I would no more give quinine in that case than I would give it in a case of collapse.

DR. SCOT.—I am satisfied that if Dr. Bernays had stopped a moment the other night he would not have claimed that he was so far in advance. He made use of the expression becaue of his

idea that no healthy child could take diphtheria. The doctrine that lies at the foundation—at the base of this argument, is as old as Hyppocrites. It is an old pathological doctrine. So far as diphtheria is concerned, the first time I read it was in a work of Cohen. This work was published in 1872, which is ten years ago; it is the same doctrine which was enunciated by Dr. Bernays. If he will refer to C. J. B. William's book on pathology, published in 1856, he will find that he put it down as one of the predisposing causes: where there is already an existing disease, the patient is thereby rendered much more susceptible to diseases that he comes in contact with. I hoped that Dr. Porter was going to tell us something more about the treatment of this disease than he did; because so far as this disease is concerned we need more thorough knowledge with regard to the treatment than we do of any thing else. We may talk here in the society as much as we please of the pathological condition, which is right and proper, but what the patients want to know is how to cure and how to prevent the disease. I agree with Dr. Wesseler when he says that what we most need is to know how to prevent the disease, and I was in hopes that some of these gentlemen would have told us something to-night, to prevent this disease. I am satisfied that there must be some causes for it that we do not as yet understand. I think that the sanitary regulation of the houses has a great deal to do with it. I do not believe that there are a dozen houses in my part of the city where the sanitary regulations are in a perfect condition. As Dr. Wesseler says, many of the very best houses have water closets almost in the sleeping rooms, and in many more there are stationary wash-stands, and as we all know, these water closets and wash stands, after being used for six months, if examined will give evidence of the presence of sewer gas. I was in a house not long ago which was thoroughly saturated with sewer gas. I certainly think many of our homes are very badly constructed in this regard. The house is connected directly with the sewer by a large pipe which is used to convey the waste waters and refuse from the kitchen sink, and probably three or four water closets.

Those of us who practice gynecology know full well that many of our worst cases come to us from exposure just in that way. These sewers are filled with gas and I am satisfied that in many cases it is emitted into the house, unless there be a quantity of water which is stationary at some point of the pipe making the figure of an S in which a large quantity of water lies and prevents the entrance of the sewer gas into the house. I think in a great many cases it would be better if we did not have the so-called modern improvements: they have not added to our health, while they may have added to our comfort.

DR. DICKINSON.—I would inquire what has been Dr. Scott's experience in regard to the use of philocarpine?

DR. SCOTT.—I have seen it recommended, but I am considerable of an old fogy and I like to tread in the footsteps of my illustrious predecessors. I like somebody else to try these things.

DR. BERNAYS.—In regard to the priority question, I have to say that I will not arge my claims at all.

In answer to Dr. Scott I must say that his views are a little too broad. Hippocrites thought that if the constution was weakened by one disease, another could more easily affect it. There was never a doubt in a reasonable persons mind about that; but in the manner in which I enunciated the theory last Saturday night it seemed to startle most of my hearers. It was denied by some of my neighbors sitting by me. The proof of this theory has not yet been produced by pathologists that I kuow of. It has merely been alluded to by McKenzie. As yet I think it is only a theory, it has no scientific value based upon pathological examination with the microscope. It is only an hypothesis or a theory at the best, and it needs to be proven. If I were to establish the priority of the idea as it was expressed last Saturday night, bearing as it does upon the welfare of millions, as Dr. Stevens has estimated it, I would ask nothing more to become immortal. It is one of the greatest steps that has ever been taken in pathology. Every man occasionally has an idea running through his head which if followed out scientifically upon investigation might make him a great benefactor to mankind.

DR. STEVENS.—I wish to say just a word. I think that the society did not fairly understand Dr. Bernays. I don't think he intended to convey the idea that it was an advanced fact, but that a person having, for instance; diarrhœa from eating cucumbers would take cholera—that was the idea that was advanced. I think his idea was that it would be an advance of this idea if it was always the case; that it must necessarily be, that before these zymotic diseases could attack the system there must be a morbid condition, and that if this is true, and can be demonstrated, that is an advance, and should be claimed as an advance. I do not think the doctor deserves any criticism for having said what he did last Saturday night; I commend him for it.

DR. WESSELER.—I would like to read a few lines—what I referred to. It occurs during a discussion of the subject of meningitis, and I said: "I don't believe the patient has vitality enough to throw off the disease. I don't believe a healthy person can be attacked by the disease. If a person is strong and healthy enough he will not contract the disease." That is the language I used at that time.

DR. MULHALL.—I don't suppose there has ever been a single fact advanerd on this snbject of diphtheria that has not been controverted by one immediately following it. Dr. Porter says

he believes that this is a local disease, and that the secondary manifestation, constitutional afterwards; and I believe he also stated that Dr. McKenzie also believed this; now I would like to have him explain to me how it is that people die of diphtheria without any local manifestation of the disease at all? Dr. McKenzie insists on this very plainly in his book, and yet states that the disease is of local origin, according to Dr. Porter. How is it possible then that a patient can die of disease without having any local manifestations. Again, the doctor says that he was himself suffering with pharyngitis while attending a case and from this he contracted a mild form of diphtheria. In rebuttal of that I will state that on Saturday night I was suffering from sore throat and last Monday morning I was called to see a case of diphtheria, Iwas suffering from a pharyngitis at the time and was suffering much pain. I stood before this child for a very long time making a laryngoscopic examination, and I did not take the diphtheria, and my sore throat has recovered; so that here is one case in rebuttal of another. It seems to be common sense to suppose that if there is a layer of the epidermis torn away or softened by inflammation, the poison would certainly meet with less resistance, and would attack the tissues more readily. Whether this is the case or not, I am not prepared to say.

With regard to sewage, Dr. Scott on last Saturday night, certainly presented a frightful picture of the sanitary condition of north St. Louis, and at the same time I would like to ask him why we don't have in that row of houses which he described, diphtheria existing there every year? Why didn,t we have it there last year or the year before? Those are the points that I wanted to call attention to.

DR. PORTER.—The local symptom may be so unimportant, so minute that the system is poisoned before we notice the local disease.

DR. HUGHES.—While it is true that Hippocrites asserts what has been stated by Dr. Scott, it is also true that since the time of Hippocrites there has reigned a theory in the medical profession that the presence of one disease was inimical to the existence of another, and that opinion has not altogether died out from the professional mind. There are not wanting men, and there have not been wanting men within the last few decades who have asserted that the presence of malaria in the system was inimical to the existence of tuberclosis, and that in order to cure tuberclosis in a patient, all we need do was to send him to a malarial region and inoculate his system with malaria. It has been held by the profession that the existence of one zymotic disease was generally sufficient to secure the patient against another zymotic disease of a different character at the same time, and I believe it is usually the fact, notwithstanding you have the prevalence of different forms of exanthematous affections at the same time it

is seldom that you find an individual having more than one characterisric affection at once; so that it is not absolutely true that there are none who believe that the presence of one disease is not inimical to the existence of another of the same class at the same time. It is a good thing to hear novel views advanced and I am sorry that I was not here last Saturday night to hear the views of Dr. Bernays upon the subject of diphtheria and other contagions.

Now it has alwaws occurred to me that there was another explanation for the fact that individuals do take diphtheria more readily when suffering from some affection of the mucous membrane than otherwise; and that explanation I take to be this: that the existence of a catarrhal condition is itself an evidence of a lowered tone of the system in that individual; a condition of vitality somewhat below par, more or less according to the gravity of the trouble, and the best explanation consists in the fact of the individual being below par, is less resistive to the presence of the materis morbi, whatever it may be, in the atmosphere at the time. In a time of epidmic diseases, when is it that your nurses and physicians begin to succumb to its influence? Is it in its incipienceve? Is it the beginning of the epidemic, in its early stages? Not at all. It is toward its close that the medical men fall under its influence. How many men fell of the yellow fever among our ranke during the first two or three weeks, or the first month of its prevalence at Memphis? It is after successive vigils, after the exhausting watches of the nurses; after the continued attentions of the physicians, that prey upon the system and produce exhaustion and diminish vital resistance that you expect to find them succumbing, and if the medical man is wise under those circumstances, when he retires weary and worn and awakens tired and exhausted in the morning, unrefreshed and feels that he is not his healthy self: if he acts wisely he will not approach these patients. The medical man who resists longest in time of epidemic is the man who maintains his system up to the highest standard of vitality, who has the most resistive influence in time of epidemic, as in other times a good constitution, and a well trained nervous system serves the medical man well as it does under other trying circumstances. In my opinion that is the reason why some men fall under epidemics, and other men survive. It is not necessary to invoke the existance of a local lesion as a condition to the inception of the materies morbi circulating through the atmosphere at that time.

DR. MULHALL.—I will just mentioned a fact which is perhaps well known, that a number of medical men have endeavored to infect themselves with diphtheria, Trosseau among others, he made a local lesion both on the skin and pharynx and was unrble to excite diphtheria. I think this tends to support Dr. Hughes' explanation.

DR. LOVE.—I think, although we may theorize and give expression to all sorts of abstruse ideas in regard to diphtheria, the practical thing for us to know and for us to impress upon our patient is that suggested by Dr. Scott, that is sanitation. The best preventive of diphtheria is fresh air and sunshine, and that which will beget on the part of the individual, and the masses of the poor, the resistance that Dr. Hughes refers to. I know myself of three cases of diphtheria which were very fatal. One case occurred in a hotel, in a family living in a suit of three rooms which opened into a bath room and water closet, which had no external opening at all except into this room; there was no window in it. It was on the second floor of a four story building, an elegant building and there was a direct communication with the sewer. That is the way the majority of these flats and fine hotels are built. There is a water closet opening into the sewerage of the city, and this closet opens into the sleeping room. Well, this was the condition of these rooms and this child inhaled this sewer gas. We may say that it was bacteria or sewer gas. These cases did not all occur this year; but within the last two years. Another case was in a family excellently situated. The child slept in a room that was well situated so far as fresh air and sunshine was concerned, but was in the habit of playing a good deal in the bath room. This bathroom was large, and heated by a furnace. The child had quite a habit of playing in the bath room, washing its dolls face and clothes: and staying in there for hours at a time. On the day it was taken, the child had been playing in the bath room. The next day there was a patch as large as a small half-dime. The child was overwhelmed with the poison and died very rapidly. Another case was in a private family who had all the modern conveniences—It was an elegant home, but they had this open wash stand and water closet opening into the room. I have no doubt that in these cases the trouble originated in the prevalence of this sewer gas. We have this everlasting disposition of putting in our houses the modern conveniennes, sacrificing health for laziness. We ought to take out these stationary wash stands and convenient water closets from our houses and go back to first principles. We ought to put those things where they belong, away back in the yard, where they used to be, and they were called back-houses, away in at the end of the lot. Dr. Barguins made some very interesting demonstrations to the effect that this sewer gas has wonderful penetrative power, that it can pass through lead pipes and iron pipes through which water would not pass; that pipes that are used for some length of time—a few months allows the sewer gas to penetrate it, and he demonstrated this by taking a section of pipe that had been used only a short time and by making a connection to it he showed that the gas would penetraee it.

SATURDAY, Dec. 16, 1882.

An Acephalous Monstrosity.

DR. POLLAK.—I have here a very interesting specimen that was loaned to me by Mrs. Laveille, M. D., who is known to us as an intelligent lady physician. This is an acephalous monstrosity and has a spina bifida from the atlas down to the first lumbar vertebra. The mother of this monstrosity was delivered last Monday morning; she was a primapara, twenty-one years of age; the parents are both perfectly healthy. Of course, we can never account for these monsters. I have frequently seen acephalous monstrosities, but I have never seen a spina bifida at the same time, such as we see here. The fœtus has no occipital bones at all and there was merely a bag hanging down which probably contained all the brains that the child had.

DR. STEVENS.—Was there any evidences of life at birth?

DR. POLLAK.—No; she supposes it is a seven months' child. The afterbirth came off readily and the mother is doing very well. In connection with this subject, I want to read a few lines about another monstrosity which was presented by the well known scientist, Paul Burt, of Paris, at the Academy of France. He thus describes a living monster seen by him in Geneva: it had two heads and thoraces, four arms, one abdomen and one pair of lower limbs. It was double to the umbilicus and from there was only one. It had two stomachs, probably two duodenums, one anus and one set of genitals, the sex being male. Remarkably enough, though anatomically the same, they are physiologically independent, each having control of the leg on his side. The monster can walk, however. Mr. Burt states that the faces are very much alike; they are intelligent. The monster speaks German, French and Italian; their health is good. They are mentally independent and sleep alternately. The food which one takes does not satisfy the hunger of the other. The need of urinating and defecating is felt simultaneously; if one has fever the other is ill. this is the most extraordinary case that I ever heard of, and is true. because he exhibited the specimen to the Academy of France.

DR. BORCK.—I will state that a picture of this monstrosity is at the College for Medical Practitioners, it having been presented to the college by a gentleman coming from Europe. It can be seen by any gentleman who will take the trouble to call at the college. It is a photograph.

Over Feeding Wet Nurses.

DR. BLOUNT.—I thought perhaps some other gentleman would like to speak, but if not, I wish to say a few words. You have

all, in your practice, doubtless seen a healthy, strong young woman, taken from the lower walks of life, to nurse a child. She is hearty, robust and healthy because of the manner in which she has been living. She is taken to the home of the child and in order to continue her in this good health, she is treated very much like a goose with its feet tacked to a board and stuffed. My attention has of late, been called to the subject of nurses and this pernicious habit of cramming them. The subject is one with which I am not over familiar and I have not been able to obtain much information from books, but my opinion is that the custom is pernicious. The nurse is introduced into the domicile for the purpose of administering to and nourishing the future scion of the house, who it is hoped, will not follow the evil practices of his father, of which I consider this a very great one: the habit of plying the woman with wine or other stimulants, when not given under strict medical supervision. It seems to me that this is a great error; yet I have no doubt the older members of this society have many times seen these evils. The nurse is always young, of good disposition and the picture of health and it is desirable for the good of humanity, to keep her so. The milk, in the opinion of many, is better where the menses are absent; and it is well known among the laity, that nothing more effectually checks the catamenia than over indulgences of various characters, such as cramming; nothing predisposes to it more than indulgence in wine, and if the habit is persisted in, the nurse may need a doctor; it is apt to produce morning sickness similar to the effect which is produced on men who are in the habit of taking daily potations. The habit, in my opinion, cannot be too highly condemned and conversation with the people has seldom any beneficial effect; they will continue the practice in spite of you.

DR. JOHNSTON.—Meeting an old member of the St. Louis Medical Society, who used to be an active member, he said to me: "you gentlemen now at the St. Louis Medical Society, are constantantly discussing the pathology, etiology and symptoms of croup and diphtheria; you should discuss the treatment more." He is a great confident in materia medica. He said what interests the public most, is being cured of the disease. It struck me that there was a good deal of force in his remarks and in the position he takes. If any member of the society had diphtheria, he would take the most interest in the doctor who would cure the disease; and I thought that perhaps we might spend this evening profitably by taking a bird's-eye view—a resumé of the treatment of croup and diphtheria during the past eighty years. All those of us who are familiar with Laennec's work on diseases of the lungs and air passages, will find that he gave an admirable description of that disease, and also at the same time, other Frenchmen who were of eminent standing in our profession, I refer to Brettonneau and others. These men at that

period, were no great advocates of bleeding. Brettonneau, so far as I remember, did not approve of bleeding, nor did he approve of the extensive use of calomel, which was the custom across the channel. Trousseau, meeting the disease, perhaps, as it prevailed in Paris in his time—which was more of diphtheritic character—more of laryngitis or in the chronic character, a tonsillitis all which diseases, I am of opinion, partook more of the adynamic than the dynamic character, or æsthenic than the sthenic character, and being fine anatomists and pathologists and close observers, they treated the disease with local washes; also administered stimulants, beef tea, etc. and with the use of the bath. This brings us up to about 1800, from 1765 to 1800. Away across the water in the northern portion of Ireland about the Frith of Forth, there was an eminent practitioner, James Shane, and as the climate was damp and cold, the disease took the membranous form of croup—the sthenic form. In Ireland, Scotland and England the disease presented itself in the inflammatory form and it was treated with ipecac, squills; and in the more severe form by bleeding. In a child one year old it was recommended to take from three to five ounces of blood; in a child from seven to eight years old, about eight ounces was to be extracted and this was to be repeated until it made a positive impression on the child; the child was made to vomit and for this purpose was treated with tartar emetic. Calomel was also given, also James' powder, which was very popular at that day, and the hot bath. Dr. Shane practiced in the day of that celebrated orator and teacher, Cullen, who in 1802 gave a description of membranous croup of the asthenic form, for which he recommended, when the symptoms were not active, small doses of ipecac, squills and syrup of orange peel; but if active, to bleed freely and immerse in a hot mustard bath and murcurialize as soon as possible. In the adynamic form he stimulated, what did he administer? Then followed the practice of Dr. West, which brings us down almost to the present time, or at least the time that I entered the profession. In his book on the diseases of children, he recommends bleeding freely, in the sthenic form: to open the jugular vein and make an active impression. In one form he says it is not always necessary to give calomel; to vomit actively, give tar tar emetic and ipecac; in some forms, to give calomel actively; in the adynamic or third stage, to give beef tea, wine and nutritious food. I have seen practitioners give tartar emetic and produce active vomiting when the lips of the patient were blue, the pulse running down and the air passages closed. Eberle recommended the use of the onion poultice, a domestic remedy; it was the custom to put them on the pharynx and over the sternum. This was a heroic remedy. I doubt whether there was ever a case of membranous croup cured by tartar emetic or poultices. I don't know that I have ever cured a case of true membranous croup. I think there is a distinction, though modern writers say not, between true

membraneous croup and pseudo membranuos croup, or between membranous croup and what is designated diphtheria. In 1855, Dr. Green, of New York, began in cases of laryngitis, tracheitis, etc., to use strong cauterizations, using from forty to sixty grains of nitrate of silver to an ounce of water, and forcing the probang down into the pharynx, larynx and even into the trachea. It is stated that some patients died, but that he was very successful. I think if there is any man who is entitled to the honor of having commenced specialism, that man is Horace Green. Now we come down to a gentleman who was here last fall, Morrell Mckenzie, who has written an admirable work. He claims that the temperature should be from sixty to sixty-five degrees. West also claims that it should be sixty-five degrees. McKenzie recommended alcohol, iron, quinine, morphia, mercury, sulphate of potassium, bromide of potassium, ipecac, cubebs, chlorate of potash, carbolic acid, salycilic acid, sylycilate of soda, carbonate of ammonia, nitrate of ammonia, etc., also borax and the steam spray. Now every member of this society, in running over this list of remedies, will see that the course of treatment recommended by McKenzie is intended to be entirely local, except in the adynamic form when he stimulates; he uses very few purgatives, but uses the spray. He and others who believe that bacteria is the cause of the disease, depend largely on carbolic acid, salycilic acid and such remedies as are supposed to kill the bacteria. Now if bacteria are the cause of the disease, whatever will kill the bacteria will cure the disease; and if that be true, then Morrell McKenzie is right. But the question that comes to the mind of the practitioner, is, is it true? This subject has been discussed here before. I am not prepared to believe that it is true. I am not prepared to believe that bacteria is the cause of croup. If I it believe with Dr. William Porter, that bacteria is the cause of croup, then I would try and cure it by the use of carbolic acid, sulphide of copper and those remedies which are destructive to these lower organisms. Now if Morrell McKenzie is correct in his theory, then Shane, Cullen and West, if they cured any cases by their treatment, must have had a different disease to treat; if they cured these cases, certainly the character of the trouble must depend upon climatic changes and influences. I believe that there has been no great change in these diseases. I believe the child who had this disease a century ago, had precisely the same thing that we find to-day. The mortality in membranous croup is at least 90 out of every 100, some writers say 19 out of 20. Morrell McKenzie reports that they succeeded in saving 66 or 75 per cent. by all the means applied. Now in the cases of tracheotomy reported by William H. Porter, (not the present one) out of 140 cases reported, 112 died; therefore he condemns the practice and especially if there was a condition of inflammation. The few cases of tracheotomy that have come under my observation have all died. Some cases

that were reported to have occurred in this city, are still living; but whether they had true membranous croup or not, I do not know. At the late meeting of the International Congress, when this subject was under consideration, one physician, who lived about twenty miles from Christiana, was the only gentleman who was in favor of heroic cauterization. It seems to me than we are curing no more patients now that we did forty years ago, when it was the practice to give tartar emetic. I cannot see that we are any more successful now than we were then. It killed a great many then and so it does now.

DR. HUGHES.—I think the successful management of diphtheria consists in its prevention; and if ever the adage was true that: an ounce of prevention is worth a pound of cure, it certainly is specially applicable to diphtheria and kindred affections that infest the denizens of our cities. Now it has been said that sewer gas poisoning is a myth; that a city tunnelled out as ours is and New York and Philadelphia and Boston and all the great cities of this land are tunnelled out, with all the means of communication by which the decomposition of each house of the hundred thousand houses or more which constitute the large city, can be brought into every other house, is not a source of disease, it is most singular. Now look at the plan by which in our modern civilization, we convey away the excrement of our houses. Here is our main sewer and here are sewer pipes communicating with forty or more houses on a block, all communicating with this one underground sewer and nothing but a shallow wall of water between the denizens of the house and the death and destruction underneath, a few feet away underground. How long does it take this water to become saturated? Water will absorb and hold a certain quantity and no more; and yet water is the great reliance of the modern sanitarian. A little sheet of water separates the atmosphere of the house from the atmosphere of the soil pipe and cess pool; and it has been demonstrated that even the joints that are supposed to be hermetically sealed with lead, are not impervious to the penetration of this sewer gas. The observations are too numerous and too concurrent; they have been made in London, Paris, New York, and in fact in every large city, by many observers, and the observations are too concurrect and confirmatory to enable us to deny the existence of sewer gas and to justify us in doubting that the contents of these sewers has much to do with the cause of diphtheria and scarlatina; and I think that when we come to adopt a plan in our houses, recommended so forcibly by Dr. Frank Hamilton, of placing the water closets out side of the house and disconnecting them therefrom, that we shall have less of these devastating scourges among our citizens. In the olden days when a man went out in the corn field, if he didn't get fresh air any other time he got it then; but many of the people living in the cities to-day, get no fresh air. Women and children have to spend

the greater portion of their time in the house if the weather is inclement, and our children are compelled to inhale an atmosphere which is impregnated more or less with gas from the water closets. I had an experience of this character. I lived in a house a few years ago, which had a stationary wash stand in the room adjoining my own and it required only about three nights' sleeping in that room to produce headache in my children and cause a low form of fever. On removing them from the room and keeping them out for three or four days, under quinia treatment, they recovered; and on placing them again in the room where the stationary wash stand was, they were again attacked. Finally the nurse became affected and I became satisfied that the stationary wash stand was the cause of the trouble. I went to the landlord and asked for permission to remove the wash stand, but he would not consent. I made a complaint to the Board of Health and a man was sent who knew about as much about house sanitation as he did about the inhabitants of the moon. He nosed around awhile, smelt nothing in the day time. You don't usually smell it in the day time. The water closets are well flushed and a current is passing on in the sewer and out into the river; but at midnight when there is a vacuum in our water closet and no flush of water, it is then that you can smell the odor. Every body knows that it is not necessary to detect the odor of sewer gas in order to have poison existing. That is a long exploded fallacy. The result was a stormy conversation between the landlord and myself and I said to him that he ought to know that a medical man with as much experience with water closets as I had had, would not make a needless complaint of a thing of that kind; but I said to him that I supposed he would not be satisfied that there was danger in that house, until he or some member of his family was carried off with diphtheria or scarlatina. His daughter, who occupied the adjoining house and who slept in the room in which was the stationary wash shand, while I was away and within six months afterwards died of scarlatinal diphtheria. The party who occupied the house after I left, put his children to sleep in that room. No change having, been made, one of the children became affected with diphtheria and Dr. Mudd performed tracheotomy upon the child, it was sick a long time. These experiences are not singular. I know persons who occupy houses that I would not occupy, not only for all I possess in the world, but all I expect to possess; I would not joepardize the life and health of my family in them. We know that the old houses which have the least perfect ventilation are the worst houses and are the most to be feared; the houses which are supplied with old soil pipes, without any connection with the roof, it requires only a few moments before the little film of water which is used as a sanitary precaution, is surcharged and can hold no more sewer gas; then where is the rest to go? It must mix with the atmosphere of the room. So

that the greatest safeguard against diphtheria is to detach the modern improvements from the houses. But now in regard to the treatment and management of these cases: It is difficult to discuss the question of bacteria or bacilli. The profession has undergone a change of mind on that subject, and it will probably in a few years, come back to the conviction that all disease does not consist of the presence of bacilli. There is a condition of the patient that is worthy to be taken into account. There is an assault made upon the vitality of the patient. The cerebro spinal centers are to be taxed in the progress of the case of diphtheria or scarlatina,—especially in their malignant form—to their utmost; the inherent vitality of the child is to be tried; the resisting power of the patient is to be put to the test; the *vis medicatrix naturæ* as modern writers term it, is to be put to the trial; and yet when a physician is confided with a case of malignant diphtheria, or scarlatina or diphtheritic inflammation, he proceeds at once to make his assault upon the throat and to ply the patient with stimulants. Now there is something else: there is anutritional process to be maintained; there is a normal appropriating power of the patient to be kept up, which is embarrassed in these cases and which must be embarrassed when a systemic disease is invading the blood. I have sometimes suggested to medical men in treating these cases to look out for that and be careful to keep the patient on his feet if that can be done by appropriate medication; to employ those remedies which are calculated to sustain the inherent vitality of the patient, sustain and support, not stimulate the central nervous system. Now it is a course of procedure that at first view is sometimes looked upon smilingly as the suggestion of a specialist. But a man who is acustomed to survey the nervous system, is no specialist. You might just as well say, the individual who makes himself familiar with the glandular system, is a specialist. He is not a specialist in the limited sense of the term. It is one of the most natural things in the world for a man accustomed to regard the part played by the nervous system in disease, in resisting the assaults of disease, to suggest a plan of treatment which will strengthen and support the central nervous system, which will maintain the nutritional processes going on within it and support the essential conditions for its restoration or, if it is tired, to resist the assaults of this poison which has invaded the blood of the system and threatened the life of the patient. I have been acustomed, regardless of the local treatment, to advise my medical friends to treat a child attacked with diphtheria in same manner that he would treat a child if it was broken down and exhausted in its central nervous system, because sooner or later and often very soon in the progress of the case, the vital powers of the patient will be exhausted and then it will be too late to restore the nutrition of the central nervous system; it will be too late then, but if from the very beginning your patient is put upon the combina-

tion of the hypophosphites, a little arsenic and the bromide of ammonium and that treatment is repeated three times a day from the beginning to the conclusion of the case, you can prophesy with much greater assurance of success that your patient will successfully weather the storm that is impending. I have adopted that plan and have advised the adoption of that plan for fifteen years and I have no reason to be dissatisfied with it. In the last few years I have not done so much general practice, but I have done a great deal of general practice. I have treated my share of scarlatina patients and I am very well satisfied with the plan of beginning at the commencement of the case and fortify the nervous system of the patient and support it, not by the use of stimulants which are ultimately depressing—which serve a man well enough in a time of immediate need—and which under certain circumstances take the place of nutrition, but from the very beginning, being assured of the existence in the blood of those ingredients restrictive of nutritive processes which are necessary to rebuild and enable the patient to resist the destructive process. Such a plan does not interfere with local methods of medication that the practitioner may choose to adopt. If the plan which I have suggested be adopted from the very beginning, there is a much greater probability of the successful termination of the treatment. If you wait until restlessness, that morbid nervous irritability which exists as the precedent of dilirium, which is so frequently an accompaniment of grave cases of scarlatina, which so often accompanies the serious form of diphtheria, and when the night time comes, if the constitutional plan is adopted from the beginning with no adequate effect, if there is restlessness, anæmia and sleeeplessness occurs, nothing better can be done than to give an adequate dose of chloral hydrate to calm and tranquilize the cerebral centers and subdue the brain excitement, give the child a period of rest such as it would have in the natural healthy condition and prepare it for fighting the next day's battle.

Article XIX.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

[Reported for the Journal.]

Thursday Evening, Dec. 14th, 1882.

The President, Dr. Jas. Tyson, in the chair.

A case of Mitral Obstruction with Sequential Lesions. Exhibited by Dr. E. Bruen.

I submit this specimen because it favorably illustrates the sequential changes in the different chambers of the heart. The auriculo-ventricular opening of the left heart is nearly occluded by an epiglottic shaped enlargement of one of the leaflets of the central valve. The valve is very much thickened, and the focus of a considerable calcareous deposit. The orafice during life permitted a reflex of blood from the ventricle into the auricle. The left auricle is dilated and hypertrophied so that its cavity is about twice as large as normal. The right ventricle is very much dilated, the valves of this cavity are less than half the normal thickness; and the ventricle must have had during life twice its physiological capacity. The tricuspid valves were insufficient on account of the dilitation. The considerable enlargement of the left auricle and right ventricle occasioned during life a broadening of the area of dullness on the level of the third and fourth ribs, viz., the apex of the cardiac triangle. It also produced a decided increase in the area of the cardiac dullnesr to the right of the median line of the sternum. In children, the heart with similar enlargement encroaches upon the left pleural cavity to such an extent, that the physiological inflation of the left lung cannot occur. Bronchial breathing is produced audible posteriorly, while anteriorly below the second inter-space no respiraratory murmur is audible. In those cases when the complication of bronchitis occurs, the physical signs suggest a pleural effusion. Enlargement of the right ventricle both in children and adults causes a pronounced impulse at the epigastrium and occasions serious pain and inconvenience. The murmur heard during life in the case from which my specimen was taken indicated this lesion, both presystolic and systolic murmurs being audible. The second sound at the pulmonary artery cartilage was also much accentuated, owing to the repletion of that vessel with blood. The first sound over the right ventricle was very clear and distinct, as is common in these cases, but the first found at the apex was obscured by the murmur. The patient from

whose body these specimens were removed was a woman aged forty-five years who had been subject to heart disease since twenty. The immediate cause of death was pulmonary repletion with blood which induced right heart failure. Compared with cases of mitral regurgitation, this mode of death illustrates a feature of the clinical pathology of mitral obstruction. In mitral regurgitation death occurs with heart failure, but usually after serious dropsy. In mitral obstruction,dropsy is not so prominent a symptom. but the pulmonary engorgement presents a perfect supply of blood to the aorta. The right ventricle failure in cases of mitral obstruction brings about death in the same manner as left ventricle failure does in cases of aortic obstruction.

Pericardial Effusiom and Adhesion of the Pericardium to the Apex of the Heart Rupture. Exhibited by Dr. J. T. Eskridge.

Dr. Eskridge said that in this case the physician making the autopsy actually considered the specimen to be one of heart rupture. The patient was a young athletic man and perfectly well until a few days before he sought medical advice. He was under treatment for only twentyfour hours, suffering from cardiac pain and great prostration. He died suddenly and unexpectedly when no one was near him. The attending physician, who made the post-mortem examination with no professional assistance, reported effusion in both pleural cavities, the pericardium distended with thin non-coagulated blood, and a rupture of the left ventricle. Dr. Eskridge said that a careful examination of the heart, pericardium, adjacent glands, and portions of the larger bronchi showed marked evidences of pericardis and pleuropericarditis. The pericardium was adherent to the lower third of the heart, but the adhesions were recent and easily severed. The heart was not much enlarged, its valves were nearly normal, and its muscle firm. No rupture was found. He believed that the case was one of pleurisy and pericarditis with effusion, death taking place suddenly from mechanical interference with the heart and lungs. He thought that the most plausible explanation of the doctor's mistake in calling it a case of cardiac rupture was, that when severing the bloon-vessels around the heart blood flowed into the pericardium and mingled with the serous effusion. He did not think that a firm, non-fatty heart could rupture itself by its own contractions. If the pericardium was filled with effusion, in that instance it taught a lesson of far more practicle value than a case of cardiac rupture under similar circumstances would. It was evident if the pericardium should be attached to the apex of the heart in a case of pericardial effusion in which operative interference was determined upon to free the hearts action, a thrust of the trocar into the pericardium would greatly endanger the ventricular walls.

Several Specimens of Eyes Enucleated on account of Sympathetic Irritation in the Other Eye, or for fear of its Developing. By Dr. Little.

Sympathetic irritation and sympathetic ophthalmia are the only two forms of the sympathetic diseases of the eye that afford an opportunity for pathological study and in these cases only the enucleated eye can be investigated just what are the conditions in the eye protected by enucleation of the other eye, primarily at fault, must remain uninvestigated; if the full restoration of the function of vision is attained in the one sought to to be protected by the enucleation of the fellow eye, great satisfaction only is felt. Less and less opportunity is being afforded of studying the condition of an eye enucleated for the presence of sympathetic ophtalmia in the other eye, since merely the sympathetic irritation of the sound eye impels the surgeon to enucleate the primarily affected eye before true sympathetic ophthalmia asserts itself. The portion of the eyeball which renders liable the development of this affection when diseased is so well known that not even sympathetic irritation should be allowed to develope, as an early enucleation will prevent it. Enucleation of the primarily deseased eye when true symyathetic ophthalmia is present in the other eye is now questionable, as after all inflammation has subsided under treatment, surgical proceedures upon the primarily affected eye may afford the best results for visual purposes. A recent experience will bear me out in this statement, the patient refusing the advice of a former medical attendant and also my own, after two months suddenly developed sympathetic ophthalmia of the sound eye. Enucleation was then too late, now both eyes are becoming quiet, and I am in doubt which in the end will be the more available eye. A physician recently under treatment for a severely traumatized eye has refused the advice of two surgeons and is now doing well, but the danger of a sympathetically irritated eye is constantly before him. The pathological investigation is then mainly restricted to eyes enucleated before or after sympathetic irritation has developed in the other eye. As results show that under such circumstances full protection to the remaining eye is afforded.

Investigation of eyes enucleated when sympathetic ophthalmia of the other eye is present may explain the cause of the the trouble in the remaining eye, but there is so much damage done to both that our knowledge only makes us the more desirous to prevent these conditions from arising, and in the multiplicity of conditions the principle cause is lost. When enucleation to forestall sympathetic irritation or ophthalmia is done, or when the operation is performed sympathetic irritation just beginning or present, the eyeball removed is in a much better state to examine and more light can be thrown on the cause of sympathetic irritation since severe inflammatory processes cloud the change from sympathetic irritation to that of sympathetic

ophthalmia, and the pathological study is more difficult. My collection contains only one specimen enucleated when sympathetic ophthalmia was present, and in this case there was a double acute glaucoma with sympathetic iritis. At this time I only desire to place before you some specimens of eyes enucleated for the protection of the fellow eye from sympathetic irritation or in which it was already beginning or developed, and in these cases good and permanent results have been attained Four of these cases were due to traumatision, the fifth was of an inflammatory character. All but one of the traumatic caes had the fellow eye affected, and the examination of the enucleated eye in the exceptional case justified the operation. In two cases the sound eye came became affected slowly after the injury to the enucel ated eye. In one case no irritation until forty years had elapsed since the accident to the enucleated eye In one non-traumatic case there were repeated attacks for a series of years, of irritability in the sound eye until the pain in the diseased eye, and the disturbance of the sound eye compelled operation. In the remaining traumatic case for twenty years the uninjured eye was unaffected except rendering the myopia more progressive, which rendered an operation imperative for its arrest and to prevent the outbreak of sympathetic ophthalmia later in life. The patients were aged respectively: three, years, forty years, forty seven years, fifty years, and seventy years. Three of the patients were males and two females. In four cases the left eye was enucleated, in one case the right. In every case the injury or disease involved directly or indirectly the ciliary body and where the crystiline lens remaieed in situ or the eclerosed tissue impinged most markedly on the ciliary region, the irritation most rapidly in the other eye. Where the crystalline lens was dislocated with weakening of the sclerotic tissue no irritation appeared for forty years in the other eye. In one case with dislocation of the lens and detachment of the retina and choroid, no irritation had appeared at the end of twenty years in the other eye. In those cases where the iris became entangled in the cicatrix, sympathetic irritation of the other eye developed most rapidly, in one instance the lens becoming cataractous in the sound eye while the injured one was either absorbed or lost at the time of the accident. In short, is it not to injury of the ciliary nerves with their varied functions, and to the damage done to tissue in which they are imbedded in the different divisions of iris, ciliary body and choroid that we are to look to as the cause of sympathetic irritation in the fellow eye, and of these the ciliary body and nervous structures in it, without involvement of the iris as the principal part involved? When sympathetic ophthalmia arises in the sound eye cannot it be traced to inflammatory processes added to the irritation of the ciliary nerves and involving the iris, ciliary body and choroid. How far the retina and optic nerve participate in sympathetic irritation it is difficult to say.

only we find that in enucleation for sympathetic irritation, the the fellow eye regains the full function of sight. In sympathetic ophthalmia however, the involvement of the nerves and retina is a more important factor and the fellow eye is not so likely to be restored to full function of sight, as the condition in the enucleated eye and the one affected are more serious on account of marked inflammatory processes.

[Dr. Little then gave in detail the histories of his cases, but all essentials having been already given their publication will be delayed until the next volume of the proceedings of the society appears.

Stab of Pericardium, Diaphragm and Liver. Exhibited by Dr. Strittmatter.

The specimens were removed from a German laborer aged sixty-two, a patient in the surgical wards of St. Mary's Hospital, under Dr. Mears, who was admitted July 16, 1882. He had been laboring for some days under mental delusion and after writing a clear intelligable letter to his wife and family in Germany, stabbed himself in the right side of the chest several times, notwithstanding all efforts of the bystanders. He was at once taken to the hospital and on admission was much excited, with a rather flushed face, but little shock, struggling to escape from the punishment of his supposed crime. Examination showed two wounds; one over and reaching down to the cartilage of the sixth rib of the right side about one and a half inches from the sternal border and about two inches in length; the other half an inch from the border of the sternum and severing from it the cartilages of the seventh and eigth ribs. Closer examination of this wound showed that these two openings through the costal cartilages about a line apart, the outer passing downward, outward and backward; the inner in a direction inward, downward and backward. Through these openings, air occasionally passed when the patient respired violently when struggling, causing a high-pitched sucking and blowing sound. None but slight bleeding took place and that from the integument. Physical signs everywhere normal except over the part of the right lung where increased resonance was noted and on heavy percussion a kind of "cracked pot" sound was elicited. Ausculation revealed diminished breathing sounds over the upper part of the right lung, while respiratory sounds were entirely absent over its lower portion. Heart's action rapid and irregular. Heart sounds feeble, especially the first. Pulse 102, respirations 42 and shallow. There was no signs of internal hæmorrhage. Both during inspiration and expiration, when the head and shoulders were raised and he inspired deeply, a peculiar high pitched blowing sound was occasionally heard a little to the left and below the ensiform cartilage. It did not resemble the sounds produced by gas in the stomach or bowels. Antiseptic dressings

were used and morphia given, but he slept little, although nothing was complained of beyond a burning sensation beneath the sternum. The next morning he was calmer, rational, felt pain only during inspiration, and altogether breathed more easily than during the night, although the physical signs remained the same. The abdomen was tympanitic. The pulse full and moderately strong, 92 per minute, respirations 32 and expiration labored with groaning. Temperature 101°.6. During the next night grew worse with restlessness, followed in the morning by cutting pain in the chest at each inspirstion, anxious pinched face and considerable anxiety as to his condition. Friction sounds were now heard over the whole of the left chest and on the right side from the apex to the fourth rib. Pericardial sounds were also heard. Pulse 100, full and hard; respirations 48, with rapid jerky inspiration, abruptly terminating to be followed by a forced, prolonged groaning expiration. Temperature 103°.2. Evening, pulse 120, respirations 44, temperature 103°.2. During the next 24 hours all the symptoms, physical as well as rational of effusion into the pericardium and both pleuras developed, but although the abdomen was tympanitic, no signs of effusion were detected. Pulse in evening 120, irregular intermitting, respirations 40, temperature 101°.8. Had a bad night and next morning seemed much prostrated with a feeble, occasionally intermitting pulse of 120 per minute, temperature 102°.8, respirations 40, labored and shallow. Low muttering delirium now set in, he sank rapidly and died at 2 P. M. of the 20th, with a temperature of 105°.5. [The surface temperature record not showing anything of *decided* interest, is omitted.]

SECTIS CADAVERIS.—Brain pia mater thickened in patches and opaque, especially on either side of the vessels, which were filled with dark blood over the upper corvex surface of the left hemisphere. There was a slight amount of serous effusion in the sub-arachnoid space. The ventricles contained a small amount of serum. Chest on raising the sternum the right pleural cavity was seen filled with a thick, fatty looking effusion, with some bands of recent lymph extending from the lung to the chest-wall. The apex of the lung was quite adherent to the chest-wall. The anterior surface of the lung was covered to the depth of one-fourth of an inch with soft, grayish yellow lymph. A portion of the back part of the inferior lobe was consolidated. The left pleural cavity was only about half filled with the same thick layer of lypmph and adhesion of the apex that was noted in the right lung. No part of the left lung would sink in water. The pericardial sac was distended with fluid and both upon its inner surface and upon that of the heart, was abundance of lymph connecting the two surfaces by drawn-out bands of the same. There was a large chicken fat clot filled with blood, with a small clot extending about six inches into the aorta. The right ventricle was filled with blood, with a small clot extending into the pul-

monary artery. Examination showed that while there were but two penetrating wounds externally, the knife must have thrust in repeatedly after partial withdrawal, as there were three openings through the diaphragm, penetrating the liver to the right of its suspensory ligament, and one traversing the lower part of the pericardial sac and entering the left lobe of the liver for about one inch. The other liver wounds were ¼, ½ and ¾ of an inch deep. There were no traces of peritonitis, although about two ounces of serum was present, probably escaped from the pericardial sac through the wound. The liver wounds did not gape, were unnnited and surrounded for about a in inch in every direction by a brownish yellow discoloration. The liver weighed 72 ounces; spleen enlarged and soft; other organs healthy. [Owing to want of space the remarks of Dr. Strittmatter have been omitted, to appear ie the next volume of the Society's Transactions.]

DR. MEARS.—I was interested in this case. During life, the symptom of wound of the diaphragm and of the liver were markedly absent, while those of injury of pericardium and pleura developed as the internal after the receipt of the wounds, increased. The external wounds gavelittle indication as to the direction taken by the knife after puncturiug the thoracic cavity and as shonw by the post-mortem examination, no information as to the extent of injury inflicted. The absence of symptoms of injury of the diaphragm may be explained by the fact that the wounds were in the tendonous portion of that muscle, and being small, did not interfere to any great extent, with its function in respiration. In injuries causing laceration of the muscular fibres attached to the ribs, dyspnœa occurrs as a prominent symptom, by reason of the impairment of the respiratory duty of the muscle. Moreover, the symptoms may have been masked by those referred to the pericardium as in wounds of both of these structures, dyspnœa is the a prominent symptom. The knife in one of the thrusts, passed through both and involved them in a common injnry. The only explanation I can offer of the production of the blowing, or rather suction sound whieh was heard under the ensiform cartilage, is, that it was occasioned by the passage of air during respiration, through the diaphragm, the air entering primartly the lung cavity through the external wound. The fact that the air did not pass in and out of the external wound during the act of respiration, afforded good evidence that the lung was not wounded. The wounds of liver were of such character as to make little or no impression beyond what might occur as the result of injury to the coverings and superficial portions. Puncture of the liver with a trocar is frequently performed with a view of evacuating fluids. Instances are reported in which no fluid has been found and no harm has been inflicted by the tapping. Extensive laceration, the result of gun-shot wounds, or

rupture following falls, produce characteristic symptoms of shock and ieternal hæmorrhage.

Secondary Sarcoma of Heart, Lungs and Gall-Bladder, following Primary Amputation for Deposit in the Femur. Presented by Dr. Willard.

The specimens exhibited were the heart, lungs and gall bladder of a female patient, æt. twenty-one, whose right thigh had been amputated four months previously for a spindle-celled sarcoma of the lower end of the femur. The apex of the right ventricle was infiltrated with a sarcomatous mass which extended into a cavity among the columnæ carneae, forming an irregular shaped body, occupying one-fifth of the space. The walls were softened and but little of a muscular fibre was to be seen at the apical region. The deseased tissue was very soft and easily detachable rendering its propulsion into the lungs a matter of exceeding probability at each heart-beat. The walls above the mass were natural in appearance and thickness, the valves showed no evidence of disease on either side of the heart. The left ventricular and both auricular walls were healthy. The disease had not reached the viscual layer of the pericardium and there was no abnormal effusion in the cavity of the sac. The septum ventricularum was not involved. That numerous particles had been swept into the lungs, was very evident when these organs were examined. At a large number of points in either lung were to be seen white masses varying in size from that of a pin's head to that of an English walnut. Some of these were dense, others were undergoing softening and in nearly every instance the lung substance surrounding was so disintegrated that the mass seemed to be in a cavity containing a dram or more of sanguinelent fluid. A very moderate degree of pressure would cause a nodule near the surface to burst its pleural covering and give rise to an accident similar to the one which was found to have occurred near the right apex. At this point a large sarcomatous mass has excited a degree of inflammation sufficient to fasten the lung to the parietal pleura and one week before the patient's death, ulcerating. Though the serous covering had given rise to an internal hæmorrhage that was well nigh fatal and gave one symytom of sudden collapse, noted in the history. This escaped blood was found in the right pleural cavity, confined by adhesions chiefly to the upper portion of chest In the week which elapsed between the hæmorrhage and death. it had coagulated, formed chicken-fat clots and other coagula weighing fully two pounds. The pleural cavity below the adhesions, contained about two quarts of bloody serum. There was no consolidation of the lungs, save around the diseased foci. The lungs had evidently acted as a complete strainer and had prevented the passage of emboli, for liver, kidneys, spleen and all other organs were healthy save one small spot in the gall-bladder. The brain was not examined. The primary disease

in the femur had apparently resulted from traumatism, since no difficulty had existed previous to a severe fall upon the knee. From this time on, the pain, on walking, was continuous and four months later there was decided enlargement of the external condyle and swelling in the popliteal space. The chief points of interest in the case were: First, the traumatism acting as an exciting cause. Second, that the physician who first saw her, detected neither fracture nor luxation nor anything beyond contusion of the joint. Third, the appearance, at the end of four months, of a pulsating tumor in the popliteal space, which presented a decided bruit, but no thrill. This was due to the lifting of the artery from its bed by the sarcomatous mass. Fourth. the non-involvement of the knee joint, although the nodules had pushed forward the synovial membranes between the condyles posteriorly. The articular cartilage of the femur was intact, although the bone tissue immediately beneath it was extensively diseased. Fifth, the return of the disease, not in the stump, but first in the right ventricle, but failure in circulation and great prostration, which came on from four to six weeks after the amputation and without anything in the condition of the stump to warrant such depression. The patient seemed in articulo mortis, yet there was no pain and no dyspnœa, only a feeble rapid heart-action, accompanied by low delirium and weakness. There were no valve sounds audible. These symptoms were due, as shown post-mortem, to the deposite and development of the sarcomatous mass in the heart. Nature, however, gradually accommodated herself to the new growth and the patient rallied for a time, so as to be able to walk on crutches, eat heartily and consider herself in good health. She got fatter and only slight dyspnœa on exertion, with three or four coughs a day remained to indicate recurrence of the disease. Sixth, a sudden causeless, as to exertion, profuse hæmorrhage from the collapse incident, to which she rallied and lived one week, with respirations 30-32, pulse 130 140. Seventh, the primary and consecutive growths showed a preponderance of spindle-cells, while the secondary nodules were composed chiefly of normal cells. Eighth, the post-mortem examination throws great light upon the clinical symptoms, while the great cavity of sarcoma of the heart makes it important to note that there was never any angina pectoris.

In Dr. Ingram's report of a case called Carcinoma of the Heart, in the Transactions of this Society for 1877, the only case ever presented to this society, angina pectoris was indicated as one of the diagnostic points. In the report of the Committee on Morbid Growths, Dr. Ingram's specimen was shown to be really an alveolar sarcoma. Secondary sarcomatous growths of the heart are mentioned by various authors, but the histories give no clinical signs of the growths. Dr. Barton said that in regard to traumatism causing morbid growths, he considered that they probably had no more causative effect than acting as *exciting*

causes. Dr. Formad asked if the exact nature of the primary growth was known, whether they consisted of round or spindle-cells, since it has been stated that the spindle-celled variety never form metastases. Dr. Seiler replied that the primary growth consisted of both round and spindle-cells. Dr Shakespeare agreed with Dr. Barton as to the origin of the primary growth. He did not think that injuries were anything more than exciting causes in those predisposed to such growths. The case presented a typical example of the method of metastasis; we have the growth first developing at the knee, whence particles were carried by the veins to the heart, become lodged there and develope into a tumor, which forms a new center from which microscopic emboli are carried by the blood-current into the lungs where they lodge and grow into nodules, seen in the specimen. Metastasis of sarcoma occurs by means of the blood-current, while that of carcinoma takes place through the lymphatics. Dr. Formad could see no other cause for the tumor than the injury of the knee, previous to which the patient had never shown any symptoms of disease of the joint, while shortly after receiving the injury, the tumor appeared. The tumor may not necessarily be malignant; there is an inflammation and the formation of cells; the malignancy will depend upon the looseness of the cells and the facility with which they can be transported.

Dr. L. R. Mills then read a paper on the Brain in Epilepsy, which, not admitting of abstraction, will be shortly published in full.

Dr. Brubaker presented a specimen of Tumor of the Brain, which with the accompanying paper, was referred to the Committee on Morbid Growths, whose report with the paper, will appear at some future time.

C. B. NANCREDE, Recorder,

Correspondence.

Article XX.

INTERNATIONAL MEDICAL CONGRESS, EIGHT SESSION, 1884.

Dr. Thos. F. Rumbold, Sir:—

According to the desire, expressed by the International Medical Congress at its 7th session in London 1881 and in consequence of later discussions on this subject, it has been resolved, that the 8th session of the Congress shall be held in Copenhagen.

Especially in order to prevent collisions with other medical congresses we beg to request, that you will, already now, in your esteemed Journal draw the attention to the fact that the 8th session of the International Medical Congress will take place in Copenhagen during the days from the 10th to the 16th of August 1884.

We are, Sir,

Your faithful Servants.

P. L. Panum,
President of the Organizing Committee of the Congress.

C. Lange,
Secretary General.

Editor Journal:—

I have been greatly interested in the discussions which have occurred from time to time, in the St. Louis Medical Society, and elsewhere in regard to Mother Marks, maternal impressions and monstrosities, it might occur, at the first glance, that the whole ground had been gone over, and that there is little occasion to say any thing more. Yet it occures to us, that there are two fields for investigation that have been entirely overlooked, the one in regard to maternal impressions, and the other in reference to the development of monstrosities. By way of inquiry, or rather for the purpose of calling the attention of Physiologists to them, we would like, as briefly and as one clearly as

our ability will permit, to point them out. First, in reference to maternal impressions. The greatest difficulty in the way of accounting for maternal impressions seems to be in the absence of nerve fibers or conducting media through the umbilical cord from the mother to the fœtus. Right here we wish to raise the first inquiry. Are such nerves, conducting media necessary? If absent, does not the mother convey the impressions of race, color and family resemblance without them? If we examine the nerve which supplies a muscle with its motor influence, we have yet to learn the fibrilla of the nerve can be traced to every fibre of that muscle and yet that muscle obeys the impulse, and contracts in its entirty. Here we are left to inferr one of two things Either the nerve fibrilla are too minute to be traced, or that the muscular tissues themselves convey nervous impresions; at least for short distances and to tissues kindred to there own. If you take the position that the nerve fibrilla are to minute in the muscle to be traced, you can not deny that they may not be present in the cord. If we admit that muscular tissues convey nervous influence are we in a position to deny that other tissues may not convey the same influence? Could we deny that the fluids of the body, the blood itself, which is a vitalized fluid, and circulates between the mother and the fœtus, might not convey impressions made upon the mother to the fœtus. If we admit that the tissues and fluids convey nervous influences, have we not given up one of the strongest points to argue from in favor of maternal impressions.? How could we then ask for nerves to convey impressions to the fœtus.?

Is there not a vital principle (call it a fluid as we do electricity if you like) which belongs to, and are inherent in the tissues, independent of the nerves or nervous system? We can easily distinguish a live body from a dead one without examining the nerves, yea, we can distinguish a live twig, which has no nerves from a dead one—by what? By the presence of the vital principle, evidenced in its very appearance.

If a sponge saturated with water, be connected to a battery, the whole sponge becomes electrified, and ready to impart it to any conductor brought in contact with it. Can we deny that this vital principle of organic life, with which the whole organism is charged, as the sponge is with electricity, may it not be the medium, through which impressions might be conveyed from the mother to the fœtus?

We have now said all we wish to, in reference to maternal impressions, and will direct your attention, for a short time, to the development of double monstrosities, supernumerary members etc.

Two prime factors enter in the process of fecundation; the ovum and the spermatozoön. All the features of the ovum, the double ovum, the double yolk, have been discussed over and over again, and nothing has been found, that will satisfactorily account for the phenomena under discussion. Now let us turn our attention to the other factor, the spermatozoön and interogate him and see whether he will reveal anything that will assist in clearing up this mystery.

Look along down the entire line of organic nature and you will see that accidents and mistakes (lapus natura) and failures occur every where. The spermatozoön, notwithstanding, it is a microscopite, is an organized body, and we know no reason why it may not be subject to these accidents. Such an accident might be sufficient to entirely destroy its vitality or it might only impair it, or prevent a perfection of its organization; but not sufficient to prevent it from performing, imperfectly, its part in the process of fecundation. What could you expect from such a spermatozoön? Notwithstanding the microscopic character of the spermatozoön it has its parts, and each part has its functions. Has it never occurred to you how much the spermatozoön resembles a minature brain with the spinal cord attached, just as the plumule in the seed, resembles the future plant. The brain and spinal cord are the *ne plus ultra*, the one essential part of the being. All the other organs are subservient to them and are built up under their supervision, for their own development, maintainance and protection. Now if you will admit that the spermatozoön represents the embyonic brain and spinal cord, and that each of its parts has its functions, and that the functions of the differnt parts of the spermatozoön be that of building up the different parts of the body: and if any part of the spermatozoön has met with one of these lapus natura, and has failed to be developed to the extent of a cell germ, there will be a corresponding failure in the development in the organ or part of the body. Thus we might be able to account for the absence of brain, limbs, or parts so often reported.

But let us take another look at this little giant, that carries with it, the vital principle of an unorganized human being.

Spermatozoa are developed in close proximity and vast numbers. Would it be any more surprising that two of these become adherent or double than that the ovum should become double or have two yelks? What would you expect from the fecundation of an ovum with one of these double spermatozoa? But again spermatozoa enter the genital tract of the female in vast numbers and become very alert in their search for the ovum. Suppose two of these should enter the gemial vesicle at the same time, (andwkno we no reason why they should not.) what would be the consequence? Would not the law of "the survival of the fittest" be here exemplified? If the one were much stronger than the other, by taking up the greater part of the nourishment furnished by the ovum and by the pressure produced by his rapid development he might be able to overcome his weaker neighbor, destroy him and cause him to be absorbed, and nothing would be the conseqnence. But suppose them to be equally yoked and each become equally developed, might not the pressure cause absorption of the contiguous surfaces and a double monster or a pair of Siamese twins be developed? Suppose them to be less equally yoked, and yet not sufficiently so that the one would entirely absorb the other, might not the parts of the weaker one, that were not absorbed, be fused on to the stronger, and thus develop a monster with one body and two heads, or a perfect child with a leg, an arm, a foot, a hand or even a toe or finger attached at some unnatural place?

By a proper attention to this part of the subject and by a careful study of the details of the physiological relations of the spermatozoa, we may yet be able to account for some things which have heretofore seemed mysterious. If I shall succeed in calling the attention of some of our physiologists who have the time, the talent, and the disposition to this field of physiological inquiry, and shall succeed in enlisting them in the undertaking, the object of this letter will have been accomplished.

Respectfully,

W. E. Gilliland, M. D.

Coatsburg, Ill., Jan. 18th, 1883.

Editorial.

Article XXI.

We publish with pleasure an article by A. Drummond Macdonald, M. B. Edin. of Liverpool, on the "Straight Bodied Position in Labour" which appeared in the *British Medical Journal* of the 2nd. Dec. last, which corroborates the views of Dr. Garland Hurt of this City in a paper read by him before the St. Louis Medical Society in May 1881. The chief point of interest in the paper is the series of cases reported, in which the merits of the position advocated were tested and, in the estimate of the author, with favorable results.

The Illinois State Board of Health is engaged in revising the Official Register of Physicians and Midwives for publication. All Changes of address and other corrections should be promptly sent to the Secretary Dr. Jno. H. Rauch, at Springfield, Illinois.

Periscope.

Article XXII.

The Straight-Bodied Position in Labor. By A. Drummond MacDonald, M. B. Edin., Liverpool.

Laceration of the perinæum being a well-recognized connecting link between the practice of obstetrics and that of gynæcology proper, its prevention demands the obstetrition's earnest attention; and it is important that the accessory extra-uterine muscular power of parturition be rightly directed.

On both these heads, position exercises a powerful influence; but it is as regards the former that I wish briefly to write, and particularly to corroborate the observation of Dr. G. Hurt, in a paper to the St. Louis Medical and Surgical Journal for August of last year, to which attention was drawn in these columns on the 8th of April last. Dr. Hurt points out that a sharply flexed and abducted position of the thighs, though necessary in some cases, conduces to perineal injury and retards delivery; whereas extention of the limbs, he says, relaxes the perinæum, and increases its inclination, so that there is less liability to perineal rupture, and less resistance to the passage of the fœtal head through the vulva.

Now, while subscribing in the main to these statements, my contention is that, in every case when the presenting mass (be it head, breach or placenta) has at most reached the perinæum, and we have arranged for its delivery, the patient should be placed in the straight-bodied position, that is, with the lower extremities abducted, and in the same straight line with the body. If classic Greek be preferred to plain Saxon, this may be called the orthodematic position (from *ὀρθος*, straight, and *τὸ δέμας*, the living body). The British left-sided position is most suited to this.

It is true that the one great effect of this position is to make more obtuse; or rather to retain the natural obtuseness of the angle of inclination of the perineal plane; it straightens the

vaginal part of the passages, and prevents the sacral segment of the floor being converted into a valvular lid for the pelvic box in its coccygo-pubic plane. Hence a demonstrable source of speedier labor.

But it is not true that this position "relaxes" the perinæum; the fact is, that artificial tention is not put on. And this is the key to many cases of failure of methods of perineal attention, whether forcible, gentle, Goodell's anal plan, or incision. The obstetrician first has placed the patient in a position of which artificial tention is a result, and then has more or less unsuccessful endeavors to undo his own work. Both these points can be simply observed by placing two fingers in the vagina, and causing the patient to flex and adduct, then extend and abduct her thighs.

Proof of the practical benefit of the straight-bodied position must be given. In attempting this, we fully recognize the difficulty of exactly estimating the part played by the three Ps of labor—the powers (artificial and natural), passengers (the child's occiput or sinciput, chin, shoulders and buttocks, and the placenta), and passages (contracted, banded, or rigid outlet), singly or in combination—especially whether any given perinæum is sufficiently elastic to yield without much laceration, whatever the position, or method of support, or relaxation. The evidences of primiparous cases will meet this difficulty to some extent.

It is unnecessary to mention the majority of labors which I have attended since April last, further than to say that, with the two exceptions I shall mention, the practice of the straight-bodied position, with some amount of perineal support, as a matter of habit, especially to a large placenta, has given the general result of only trifling laceration of the vulvo-perineal margin. I will particularise eighteen cases. Ten were primiparæ, three secundiparæ, and five multiparæ. Nineteen children of fully average size—except twins, a little under average, at or near the full period of gestation—were born. One had been dead about four or five days, another had died during labor, a drachm and a half of the liquid extract of ergot having been administered to the mother by a certificated midwife about two hours before my arival. The heaviest child weighed nine pounds and a half, the lightest about six pounds. Eleven mothers were delivered by forceps—five by Sir James Simpson's long, two by his short, and four by my indicating axistraction forceps. Dr. Fox Morrish, of Dingle Hill, was present when I did three of

these operations. I gave chloroform for him in a fourth, and the remaining seven I performed myself alone. Eight were primiparæ, one a secundipara, and two were multiparæ. They were of ages from twenty-three upwards. One was a persistent occipito-posterior case. Of the seven remaining cases, two were primiparæ, two secundiparæ, and three multiparæ. In one (the twins) the first child was delivered footling. I performed podalic version of the second for arm presentation. There were also one breech, two occipito-posterior, one face becoming occipito-posterior, and two cases of natural primiparous labor, to which I shall again refer.

Such are the chief facts which will enable anyone to judge whether the kind of evidence I offer, apart from quantity, is of a testing nature.

I shall now briefly state the results obtained. Fourteen of the cases afforded positive proof in favor of the straight-bodied position; two gave negative proof in its favor, and two tended to prove that straight-body *plus* support exercises only a slight beneficial influence where there is genuine rigidity of the perineum, though I am bound to give the modifying opinion that the flexed-thigh position *plus* support would have produced a worse result.

Taking the last two mentioned cases first—they were primiparæ of thirty-two and twenty-four years, children both males, delivered by Simpson's short and my forceps respectively. Both perinæums were rigid, and of considerable comparative thickness—the powers could not overcome the passages, and the resistance in each case being considerably greater than the force. Delivery was slowly effected in the straight-bodied position, and and with support; but, notwithstanding every care, there was laceration to within a quarter and a half an inch of the external anal spincter respectively.

Two cases furnished negative proof, as I have said. In fact, two vivisection experiments on the subject were ready made for me. In one, a primipara, with comparatively thin perinæum, had gone to stool during the second stage, when a storm of pains came on, by which a male child was born, the perinæum being ruptured to the external spincter. In the other, a secundipara, a female child was being expelled in an accipito-posterior position, the occiput rotating to the left, just as I was entering

the room. The patient was in bed on the left side, partially uncovered by the nurse, in a doubled-up position; and the perinæum was as in the previous case. Compare the other occipito-posterior cases cited below, with this one. It is evident that in the two cases the position was one of great flexion of the thighs, with a degree of abduction. I therefore hold that they go to prove not only the tendendcy to production of laceration by such a position, but they also bear a positive implication that the straight-bodied posture would have prevented the production of this effect.

Let us look lastly at the fourteen cases of positive proof. Seven were primiparæ, two secundiparæ, and five were multiparæ. The latter sevon had had a degree of previous perineal laceration, which has long ago been pointed out as very common. The special results were that, in three primiparous forceps cases, and one multiparous persistent occipito-posterior forceps case, as well as the version, there was only the traditional crack of the fourchette; the perinæum fitted the head and buttocks "like a glove." In the breech, the two terminating unassisted occipito-posterior, the one secundiparous, and one multiparous forceps, and also the other three primiparous forceps cases, there was only trifling laceration beyond the fourchette. No pillow was used, and as little thigh-abduction as possible. In the case in which I gave chloroform, and in two of the cases where Dr. Morrish was present, he concurred with me in considering the straight-bodied position to be of benefit.

I have instanced above, the case of one primipara delivered at stool. The other, which I promised to refer to, had a natural labor. I caused her to straighten the limbs when the occiput began to impinge upon the perinæum. The head was not delayed, and a male child was born, causing a scarcely appreciable crack. No support or method of relaxation of any kind used; the case was a natural one in every sense.

Regarding the method of procedure in non-operative cases, it is simple and obvious; in operations, the patient must first be placed in the "established English obstetric position"; then the forceps-blades, for example, are to grasp the head, (or breech) firmly, while the nurse lifts the patient's shoulders so that the body is brought round parallel with the front of the bed. A little additional assistance places the patient further from the edge, but within convenient reach; and the child is delivered, the

accoucher standing. This arrangement looks a little inconvenient, but practically is not so in the British left-sided position. I have no experience of the continental decubitus.

In stating my deductions, finally, I do not care to be too dogmatic, and it discords with the critical spirit of the age, to ride a hobby hard; but I am sure that I state a very moderate conclusion from the premises I have laid down, when I give the opinion that the flexed-thigh attitude ought not to be maintained at the close os the second stage of labor, and that other methods for acceleration of delivery and prevention of laceration of the perinæum find a very valuable adjunct in the straight-bodied or orthodematic position.—[*British Med. Jour.*

Book Reviews.

Article XXIII.

The Pharmacopœa of the United States of America. Sixth Decennal Revision. By Authority of the National Convention for Revising the Pharmacopœia, Held at Washington, A. D. 1880. N. Y. Wm. Wood and Co. 1882. pp. 488. 8vo.

The dicussion of this work for 1880 was sent to the profession last November. It has an historical introduction of ten pages which is quite interesting. and twelve more of the proceedings of the convention that revised the work. Then comes eight pages of a preface, following which are eight pages of preliminary notices, giving certain definitions that are to be understood when speaking of powders, percolations, specific gravity, temperature, and weights and measures, a careful reading of which is necessary for a proper understanding of all that follows in the work. We have not space to speak of the improvments and changes, noted in the body of the work. This book is a great improvment on having none at all, as our old Pharmacopœia, was of little use either to the druggest or physician, the old chemical symbols and equivolents serving to retain the former errors and prevent the new advances known in chemistry.

The book is well worth a place in any ones library.

Rheumatism, Gout, and Some Allied Disorders. By Morris Longstreth, M. D., One of the Attending Physicians of the Pennsylvania Hospital; Lecturer on Pathological Anatomy at the Jefferson Medical College, Philadelpoia Pa. N. Y. Wm. Wood and Co. 56 and 58 Lafayette Place, 1882. pp. 280. 8vo.

This is the October number of Wood and Co's Library of Standard Authors.

These two diseases and some allied disorders are treated quite learnedly, by Dr. Longstreth. While it is not to be expected that much original matter could be given on this subject, the author has taken great pains to review the latest improvements in treatment as well as pathology, this is plainly seen throughout the work.

A Treatise on the Practice of Medecine, for the Use of Students and Practitioners. By Robert Bartholow, A. M. M. D., L. L. D., Prof. of Materia Medica and The rapeutics in the Jefferson Medical College of

Philadelphia, etc., etc., 3d Edition, Revised and Enlarged. New York: D. Appleton and Co. 1, 3 and 5 Bond st. 1882. pp. 918, 8vo.

The preface to the 1st edition states that it was first issued Sept. 1880, and the 2d edition Nov. 1880, while the present edition is dated Jan. 1882

The rapid sale of the editions of this work indicates that the author is popular with the reading medical public, and that the reviews of the 1st and 2d editions had made a favorable impression upon those who desired his latest views. There is nothing that pleases an author so well as the appreciation of his efforts, and the rapid sale of his work.

In this last edition he has added about fifty pages, and thus enlarged the scope, and increased the utility of the book. The author has been furnished by various correspondents with the results of treatment, as obtained by them from the methods prescribed in the therapeutical sections of the work. This is really an admirable way of finding out the true value of a certain course in practice.

Much of the matter embraced in this work is the common property of the medical profession, but he has sifted their views very thoroughly and recommended a plan of treatment consistent with common sense and in consonance with the experience of those who have been in practice for quite a number of years.

Books and Pamphlets Received.

Article XXIV.

The Diseases of the Liver, with and without Jaundice, with the Special Application of Chemistry to their Diagnosis and Treatment. By George Harfey, M. D., F. R. S. 16mo., pp. 751. (Phila.: P. Blakiston, Son & Co., 1883; St. Louis: Frank Rivers, 204 North 5th St.) Price cloth, $5.00; leather, $6.00

A Manual of Gynæcologogy. By D. Berry Hart, M. D., F. R. C. P. E., and A. H. Barbour, A. M., B. Sc., M. B. Cloth binding, 16mo., pp. 318. (New York: Wm. Wood & Co., 1883.)

The Management of Chronic Inebriates and Insane Drunkards. By Albert N. Blodget, M. D. (Boston: Press of Geo. H. Ellis, 1882.)

Fifty-Seventh Annual Report of the Massachusetts Charitable Eye and Ear Infirmary for the year 1882. (Boston: Alfred Mudge & Son, Printers.)

Address in Surgery. Excisions of Portions of the Alimentary Canal, Covered Peritoneum. By Wm. A. Byrd, M. D. (Reprinted from the Transactions of the American Medical Association 1882.)

Scrofula and its Gland Diseases. An Introduction to the General Pathology of Scrofula with an Account of the History, Diagnosis and Treatment of its Glandular Affections. By Frederick Treves, F. R. C. S., Eng. (Phila.: Henry C. Lea's Son & Co.) Price 10 cts.

Annual Announcement of the Toledo Medical College, Session of 1883.

The Physiology of Alcohols. An Address, by Wm. B. Carpenter, M. D., LL. D., F. R. C. S. (New York: National Temperance Society and Publication House, 1883.)

The Value of Graduated Pressure in the Treatment of Diseases of the Vagina, Uterus, Ovaries and other Appendages. By Nathan Bozeman, M. D. (Reprinted from the *Atlanta Medical Register*, Jan., 1883.)

A Winter Climate for Invalids. The Gulf Coast of Florida. By R. J. Lewis, M. D.

Civilization not the Cause of Tooth Decay. An Essay, by John J. R. Patrick, D. D. S. (Reprinted from the Society's Transactions.)

Annual Address delivered before the American Academy of Medicine, at Philadelphia. By Trail Green, A. M., M. D.,

Tuberculosis as Manifested in the Larynx. By J. Solis Cohen, M. D. (Extracted from the *American Journal of the Medical Sciences*, for Jan., 1883.)

Nitro-Glycerin as a Remedy for Angina Pectoris. By Wm. Murrell, M. D., R. C. P., Lecturer on Materia Medica and Therapeutics, at the Westminster Hospital. 8vo., pp. 78. (Detroit: G. S. Davis, 1882.) Price $1.25

News Items.

Article XXV.

The *Arkansas Doctor* is reported dead.

It is said that the *St. Louis Clinical Record* is dead.

It is reported that the *Detroit Clinic* is to be absorbed by Dr. Mulheron's journal, the *Michigan Medical News.*

International Medical Congress.—We have been officially requested to call the attention of our readers to the fact that the eighth session of the International Medical Congress will be held in Copenhagen, Denmark, from the 10th to the 16th of August, 1883, inclusive.

The *New Orleans Medical Journal*, for so long a time edited by Dr. S. M. Bemis, has passed into the hands of Dr. W. H. Watkins.

An effort is being made in Pennsylvania to secure the passage of a more liberal law providing for anatomical disections.

Dr. Liebault declares that of 1,014 persons whom he attempted to hypnotize, only sixty failed to give evidence of his influence.

Is inebriety a disease of a vice? This is a question which is at present agitating Dr. Crothers and other patho-physical philosophers. Without waiting to be asked we answer that, in our opinion, it is a good deal of both.

In the report of the Secretary of the Interior for 1882, speaking of progress of education, the Secretary says: "Great efforts are made by the professional men to advance the standard of admission to the practice of law, medicine, engineering, chemistry and pharmacy."

GRAVE robbers are having a hard time. Two medical students and two colored men have been sent to prison, in Richmond, for body-stealing. In Philadelphia, Dr. Forbes, Professor of Anatomy in the Jefferson Medical College, is under arrest. Similar arrests are reported to have been made in Goldsboro, N. C., and in Montreal.

DR. TILT, in the last edition of his work entitled, "The Change of Life," indulges in some ill natured and personal remarks about American gynæcologists. We never object to fair and manly criticism; but Dr. Tilt's are not of that character, and are much more discreditable to himself than to the gentlemen who are assailed.

AFTER this session those colleges which do not require a preliminary examination will be under the ban of the State Board of Health of Illinois, and their graduates will be obliged to undergo an examination before the Board, before they will be allowed to practice medicine in that State.

THE *Official Messenger* publishes a decision in the Medical Council of St. Petersburg, condemning the homœpathic remedy for diphtheria, which has lately been tried there in the hospitals of the Red Cross Society, as false and dangerous.

THE THIRD CORPUSCLE OF THE BLOOD.—Mrs. Ernest Hart, in the *London Medical Record*, publishes a criticism upon Dr. Norris' work on the physiology of the blood. She claims that the "invisible corpuscle" described by him is really only a red corpuscle decolorized.

TRUTH THROUGH ERROR.—A busy doctor sent in a certificate of death the other day, and accidentally signed his name in the space for "Cause of Death." The registrar says he wishes the profession would be as accurate generally.

THE announcement of the death of Dr. George M. Beard, the well known medical writer and specialist in diseases of the nervous system, which occurred in New York on the 23d ult., will cause a general feeling of regret at the loss sustained by the profession in his early demise. It was found that he had per-

ished of pneumonia of septicæmic character, resulting from a carious tooth—in other words, of overwork. Dr. Beard was only forty-three years of age. He was a member of many scientifical societies, and was an original thinker, a frequent contributor to medical literature, and generally known as a most industrious worker.

THE NEXT MEETING OF THE DISTRICT MEDICAL SOCIETY OF CENTRAL ILLINOIS.—The Society meets twice a year in Library Hall, Pana, Ill., the Annual Meeting being on last Tuesday of October, Semi-Annual last Tuesday in April. The Semi-Annual meeting will be held at Pana, Ill., in Library Hall, April 24, 1883.

PROGRAMME:

Reports of Committees.—Surgery, Dr. C. T. Reber, Chairman, Shelbyville, Ill.; Medical Ethics, Dr. S. T. McDermith, Cowden, Ill.

Essays.—Typhoid Fever, Dr. C. L. Carroll, Edinburg, Ill.; Erysipelas, Dr. John Cook, Beecher City, Ill.; Malignant Growths, Dr, J. H. Miller, Ocenee, Ill.; Surgical Dressings, Dr. T. J. Whitten, Nokomis, Ill.; Rheumatism, Dr. B. M. Griffith, Springfield, Ill., Metrorrhagia, Dr. A. R. Small, Decatur, Ill.

DR. W. J. CHENOWETH, Decatur, Ill., Pres.
DR. J. H. MILLER, Oconee, Sec.

THE Sanitarian appears as a weekly. The first number is excellent in every respect, and the editor, Dr. Bell, is worthy of the most liberal support.

DR. WARREN STONE, of New Orleans, La. and son of the celebrated surgeon of that name, died in New Orleans in the early part of the present month.

DR. GEORGE M. BEARD, of this city, died suddenly of pleuro-pneumonia at the Grand Hotel, January 23rd, at 10 A. M. Dr. Beard was well known to the Profession as a voluminous writer. He was an enthusias on the subject of neurology, neurasthenia American nervousness hypnotism, the heroic treatment of seasickness by the use of the bromides etc., and in the Guiteau case he was quite prominent in his efforts to save the assassin. Dr. Beard was born in Montville, Conn., May 8th, 1839. He

was a good man, and his sad and sudden death will be universally regretted.

TO MEDICAL SOCIETIES.—Secretaries of Medical Societies in the State of Illinois are requested to forward lists of the officers and members of such Societies, with Post-office addresses, to the Secretary of the State Board of Health at Springfield. Such lists are needed to facilitate the proper distribution of the publications of the Board, and for other purposes.

Dr. Derby says, in the Record, that ten grains of quinine, given in the early stages, will prevent an attack of intestinal colic, or, administerd at any stage, will speedily effect a cure.

Dr. M. A. Pallen having resigned the chair of Gynecology in the New York Post-Graduate School, Dr. B. F. Dawson has been appointed to the position.

A PHYSICAL ASPECT OF ABSCESSES.—Professor in physics: "What is Boyles law?" Student, with a carbuncle: "To break out in the most inconvenient place."

A NEW MOXA.—Under the name of "*Crayon-feu,*" Dr. Moses describes a preparation as follows: Charcoal powder, 30 grams; nitrate of potash, 4 grams; benzoin, 1 gram. The whole to be made up with some adhesive substance into forty crayons. He so obtains a hard preparation, which is easily inflamed ba a match, and which he proposes for the cauterization of poisoned wounds, and when the actual cautery is required.—[*Gazette Hebdomadaire.*

AT a regular meeting of the St. Louis Medical Society held Jan. 20th 1883, the following was adopted:

The St. Louis Medical Society is again called upon to register the loss of one of its oldest members. By the death of Dr. Charles Hauck the physicians of the City lose a colleague, who has dwelt and labored among them for more than thirty years.

Dr. Hauck received his medical education in the University of Goettingen, where he took his degree in 1846. He made his home in this city about the year 1850, and acquired a very large practice, gaining especial reputation in the treatment of

children, and enjoying the confidence and love of his patients and friend as a most estimable man. In the midst of his professional duties, in the very act of visiting the sick, he was suddenly called away.

Honor to the physician of many years, who executed his high trust with rare fidelity and energy, with marked skill and success. The St. Louis Medical Society give voice to the unanimous sentiment of the profession in expressing their sorrow at the sudden demise of Dr. Hauck, and their deep sympathy with the bereaved family.

(Signed.) G. BAUMGARTEN, M. D.
G. F. DUDLEY, M. D.
ADOLPHUS GREEN, M. D. } Committee.
F. W. WESSELER, M. D.
A. C. BERNAYS, M. D.

THE following interesting case by Dr. Louis Henry is taken from the *Australasian Gazette*:

On Nov. 6th, 1875 a German officer residing in Berlin, swallowed a triangular piece of glass, the hypotenus of which was one inch, with base three eighths of an inch, and one eighth of an inch thick, while drinking a glass of beer. Immediately after the patient felt a sharp pain in the region of the arytenoid cartilage. In about an hour a desire to cough increased to a violent paroxysm of coughing, lasting from ten to forty minutes each time. The day following the patient felt as though his throat was gradually closing up, and called in a physician who tried to dislodge the glass by sweeping his finger round the fauces, then ordered an emetic which only provoked excessive pains and expectoration of blood. A few days later a further attempt to extract the glass was made with a long wire, on the end of which was tied a piece of sponge, and so introduced into the œsophagus. The result of this was but a repetition of the same painful symptoms.

In March 1876 a small swelling was noticeable in the region of the right fossa—infra clavicularis, and a few weeks later a cupful of coagulated blood and pus, having a very fœtid smell, was expectorated, giving the patient a feeling of relief. He then placed himself under Prof. Willms for the purpose of an operation. Ice was applied but that increased the coughing; warm poultices were then applied which caused the temperature to rise

to 105° F. In Jan. 1877 he placed himself under Prof. Kuster at the Augusta Hospital. It was as Prof. Kuster's assistant that I meet him. The patient was in a very low condition, eyes sunken, and his features showed extreme suffering, voice low and toneless, every attempt at speech would bring on excessive paroxysms of coughing. The seat of pain directly in the regio epigastrica seemed to correspond to the lower margin of the stomach. The spot was sensitive and an attempt to straighten the right leg, which was always strongly flexed, would bring on a fit of coughing. We fed him for twenty-one days through the œsophagus tube. Under this treatment the patient rapidly improved, but there was no abatement of the symptoms already enumerated. In about three weeks the patient was enabled to eat without the aid of the tube. In a few days a gangrenous patch, which had been formed, gave way, and an examination being made with a probe, a hard substance was felt, the wound war dilated, and, with the aid of the forceps, the glass was removed. The patient then improved rapidly and is now enjoying good health.

METEOROLOGICAL OBSERVATIONS.

By A. WISLIZENUS, M. D.

The following observations of daily temperature in St. Louis are made with a MAXIMUM and MINIMUM thermometer (of Green, N. Y.). The daily minimum occurs generally in night, the maximum at p. m. The monthly mean of the daily minima and maxima added and divided by two, gives quite a reliable mean of the monthly temperature.

THERMOMETER, FAHRENHEIT—DEC., 1882.

Day of Month.	Minimum.	Maximum.	Day of Month	Minimum.	Maximum
1	32.5	51.0	18	22.0	38.0
2	34.0	37.5	19	35.0	49.0
3	25.0	37.5	20	38.0	45 0
4	39.0	53.0	21	39.0	41.5
5	39.0	43.0	22	33.0	37.0
6	33.0	40.0	23	8.0	45.0
7	4.5	9.0	24	29.0	43.5
8	2.0	21.5	25	35.0	38.5
9	19.0	33.0	26	33.0	38.0
10	26.0	37.0	27	34.0	39.0
11	21.5	43.0	28	28.0	30.0
12	35.0	48.0	29	23.5	34.0
13	22.0	38.5	30	24.5	27.5
14	30.0	38.0	31	27.0	30.0
15	15.5	22 0			
16	6.0	23.5	Means	26.5	37.1
17	21 0	39.0	Monthly Mean.	31.8	

Quantity of rain and snow, 1.55 inches.

MORTALITY REPORT.---CITY OF ST. LOUIS.

FROM NOV. 4, 1882, TO NOV. 25, 1882, INCLUSIVE.

Small Pox	0	Childbirth	0	Convulsions & Trismus Neonatorum	28	Syphilis	1
Scariatina	33	Inanition, Want of Breast Milk, etc.	12	Hydrocephalus and Tub. Meningitis.	2	Apoplexy	11
Pysæmia & Septicæ	5	Alcoholism	4	Meningitis & Encephalitis	10	Dis. fem. gen. org.	2
Erysipelas	2	Rheumat'm & Gout	2	Other Diseases of the Brain and Nervous System	30	Surgical Operation	0
Diphtheria	90	Cancer and Malignant Tumor	4	Cirrhosis of Liver and Hepatitis	13	Deaths by Suicide	2
Membran's Croup.	17	Phthisis & Tuberculosis, Pulmon	53	Enteritis, Gastro-Enteritis, Peritonit, and Gastritis'	20	Deaths by Accid't	20
Whooping Cough.	3	Bronchitis	11	Bright's Disease and Nephritis	14	Deaths by Homicid	2
Still-born	—	Senility	11	Other Diseases of Urin ary Organs.	1	Congen Defor'ty	26
Measles	2	Pneumonia	34	Dis. locom Organs	1	Total Deaths from all Causes	747
Typhoid Fever	16	Heart Diseases	18	Unknown	0	Total Zymotic Diseases	239
Cerebro Spinal Fev	3	Other Diseases of Respir'y Organs.	16			Total Constitutional Diseases	87
Remittent, Intermittent, Typho-Malarial, Congestive & Simple		Dis. Integ	0			Total Local Diseases	212
Contin'd Fevers,	27	Marasmus — Tabes Mesenterica and Scrofula	24			Total Develop'tal Diseases	37
Puerperal Fevers	6	Other Const. Dis.	2			Deaths by Viol'ce	24
Diarrhœal Diseas	25						
Other Zymotic Diseases	2						

CHAS. W. FRANCIS. *Health Commissioner.*

VOL. XLIV. MARCH, 1883. No. 3

Original Contributions.

ARTICLE XXVI.

CEREBRO-SPINAL MENINGITIS.* By GEO. HAMILTON, M. D., of Rochester, Mo.

DIAGNOSIS.

There is usually but little difficulty in making the diagnosis of cerebro-spinal meningitis when the disease is epidemic, unless it be just at its commencement; for in a large majority of cases the characteristic features are strikingly distinctive. But mild cases, even during an epidemic, but more especially mild sporadic cases, are often not recognized as such and are confounded with other miasmatic, infectious or contagious diseases presenting analogous sypmtons. This pernicious intermittent fever with its manifestations, typhoid with unusually acute pains in the neck and back, scarlatina beginning with violent cerebral symptoms, the cephalic affections of children complicated by hyperæsthesia, irritability and pain in the neck, and, finally, acute spinal meningitis, have many symptoms in common with the disease under consideration and may lead to errors in diagnosis.

In some cases the disease can be recognized only after careful and prolonged observation and by exclusion; although usually the diagnosis may be made with a good deal of certainty after the lapse of several days.

The characteristic signs of cerebro-spinal meningitis are the sudden invasion, being usually ushered in by a chill, with signs more or less pronounced which is followed by fever, disturbances of sensation, constipation, small pulse and tetanic contractions affecting chiefly the muscles of the neck and back, producing in many cases, complete opisthotonous and sometimes extending to the muscles of the chest and abdomen. The patient is generally unable to flex his head without great pain and the production of tetanic spasms; although it is said that in some rare cases the opposite condition of emprosthotonous is found.

By remembering these distinctive symptoms, together with the fact that the disease is generally epidemic, any well-informed,

*Read before the Linton District Medical Society, May, 1882.

observant practitioner of medicine ought not to have much difficulty in determining the nature of the affection, especially if some of his first cases present a majority of the symptoms in a well marked form.

Cerebro-spinal meningitis can usually be differentiated from typhoid fever from the suddenness of the attack in most cases, the absence of febrile movement at the commencement—the pulse then being often less than in health—the increase rather than the diminution of the cephalagia as the disease progresses, and by the occurrence of symptoms denoting inflammation of meninges of the brain and cord.

While the characteristic abdominal symptoms of typhoid or enteric fever, diarrhœa with watery ocre-colored or "green pea soup," alvine discharges, meteorism, borborygmus, and tenderness with fluctuation or gurgling upon pressure, especially noticeable in the right iliac fossa are notably absent in cerebro-spinal meningitis.

Typhus fever may be excluded by the absence of its characteristic eruption, which usually appear on the third or fourth day after taking the bed. On the other hand, the spots of ecchymosis, which the name "spotted fever" is based, cannot be found with the eruption of typhus. The dusky hue of the surface and the characteristic physiognomy of typhus are not seen in the malady under consideration. Moreover, the tonic contractions of the muscles of the neck, the rachalgia, the convulsions and furious delirium which not unfrequently occur in cerebro-spinal meningitis, are very rare in cases of either typhoid or typhus fever. We may at present exclude typhus in this district; for, so far as I am informed, it has never yet made its appearance with us.

To distinguish cerebro-spinal meningitis in its fulminant form from pernicious intermittent fever, we have only to remember that generally the latter does not destroy life in the first paroxysm; and the history of the occurrence of a paroxism from which the patient has emerged is sufficient to establish the diagnosis of congestive chills. In the malarial affection we usually find the pernicious paroxysm preceded by others which are mild and which have not excited the apprehension of impending danger; although there may be no other antecedent manifestation of malarial intoxication.

Some of the obsure cases might not be recognized by the

acumen of the most careful and experienced diagnostician; but by considering whether the case has occurred in an intensely malarious region, and whether pernicious intermittent is prevailing at the time, and coupling with that the notable symptoms of intense congestion of the deep seated organs—especially that of the lungs, as indicated by the embarrassed respiration—the notable reduction in temperature of the surface of the extremities, together with the great increase in temperature of the blood in the deep vessels, as ascertained by testing with the clinical thermometer in the rectum, there ought then to be but little trouble in differentiation even in these perplexing cases.

Tetanus may be mistaken for cerebro-spinal meningitis on account of the trismus and opisthotonous. But in tetanus the cerebral symptoms are absent, and we do not find other of the early, grave symptoms of the former disease; besides in tetanus the contractions are more sudden and violent and the spasms more painful. Moreover, tetanus, in other than tropical climates, is exceedingly rare except as a traumatic and never prevails except as an epidemic.

In spinal meningitis and in myelitis, head symptoms are wanting. In myelitis there is usually an absence of convulsions and spasms; or, should the latter occur, they appear as clonic spasms only. Priapism is a common symptom in inflammation of the substance of the cord; while it is seldom met with in the cerebro-spinal affection. Moreover, myelitis is usually accompanied with or followed by paralysis of the extremities, generally paraplegic; while paralysis is rarely an attendant symptom and not a frequent sequel of cerebro-spinal fever, and when it does occur is usually limited in extent and confined to the muscles supplied by the cranial nerves which are enveloped by the exudation.

In tuberculous meningitis we note a more insidious beginning, a more protracted and milder course, and an absence of stiffness and retraction of the neck; besides, usually the history of a strumous diathesis.

The sporadic form of cerebro-spinal meningitis usually runs a slower course with less marked spinal symptoms than the epidemic form of the malady. It is claimed that in some sporadic cases there was but slight impairment of the special senses and no retraction of the head.

TREATMENT.

The rational treatment of this as of other infectious or epidemic diseases, is prophylactic and therapeutic.

(1.) PROPHYLAC TREATMENT.—As we do not know the nature of either the essential cause or of the accessory cause or causes of cerebro-spinal meningitis, our efforts at prevention are limited to general sanitary measures applicable alike in all epidemic diseases, for the purification of houses and localities; such as free ventilation, cleanliness and the use of disinfectants.

Of the latter may be mentioned chloride of lime, solutions of permanganate of potassium, chloral hydrate and of carbolic and sulphurous acids.

Prudence dictates that, whenever practicable, patients should be removed beyond the sphere of epidemic influence, and strict attention be given to all hygienic measures relating to individual and to public health.

The views of Drs. B. W. Richardson, Henry B. Baker and others, that the disease is caused by the injestion of food made of wheat, some of which contained diseases or smutty grains similar to the ergot of rye, should lead to a careful examination, microscopic and otherwise, of all wheaten breadstuffs used by families and communities when the disease has broken out, and to the disuse of such as may be of doubtful character.

(2.) THERAPEUTIC TREATMENT.—General Observations.—The curative treatment of cerebro-spinal meningitis should be prompt and energetic; and at the same time, because of our want of knowledge of the causation of the disease, great discretion should be exercised in the use of therapeutic agents, so as not to interfere with the natural vital processes tending towards recovery. If the physician will assist nature by keeping his patient as near as practicable in a physiological condition, he can never go very far astray. If we cannot do our patient good, let us avoid doing him harm. Hence the rational treatment of this disease is conservative, symptomatic and supporting. Every means should be used to keep up nutrition and to sustain the vital powers.

The regimen should be generous and nutritious from the beginning of the disease. In the acute stage a liquid diet is indicated. Fresh unskimmed milk, rich soups, beef tea and soft boiled eggs are about the best. In protracted cases some of the

preparations of malt, or some of the various compound preparations of condensed milk food, in which the amylaceous constituents have been transformed into soluble dextrine, and glucose may be given with much benefit when the patient has tired on ordinary viands.

In grave cases when food cannot be given by the mouth, either from the persistent refusal or the inability of the patient to swallow, resort must be had to rectal alimentation.

As the appetite returns, the patient should be allowed solid food of any easily digestible character.

When there is thirst, the desire for water and other refreshing drinks should be freely indulged.

CURATIVE TREATMENT.—Therapeutic measures in the treatment of cerebro-spinal meningitis must be employed chiefly for two purposes: first, to sustain the nervous system, diminish the violence of the febrile movement and to ease the pain; and, second, to counteract the first symptoms of depression by timely stimulation. The treatment may be divided into external measures and internal medication.

(*a.*) EXTERNAL MEASURES.—Of these the local abstraction of blood or any other form of depletion is contradicted. The application of wet cups to the neck or vertebral column, has with some been regarded with favor, both on the theory of local abstraction of blood and to diminish the rachalgia; but as they exert no influence upon the fecal termination of the disease in severe forms, they can be regarded as paliatives only.

Counter-irritation has been found useful. Vesication of the neck or spine, by means of the cantharidal blister or collodion, or what is still better in urgent cases, from the rapidity of its operation, the strong aqua ammonia, may be employed, except with young children and may be repeated if it affords relief.

Revulsive applications to the extremities by means of sinapisms or stimulating pidiluvia are always admissable and are generally indicated. The local application of the tincture of iodine to the vertebral column, has been practiced, partly on account of its irritating the integument, but chiefly to cause absorption of the inflammatory products within the spinal canal.

Great good, it is claimed, has been achieved in recent epidemics, by methodical hydro-therapeutics. Cold applications to the head and spine are especially recommended by most

authors when there is much febrile movement attended with nervous irritability. Cold compresses to the head diminish the cephalgia and are demanded by patients who have not lost consciousness. Ziemessen and others have obtained more or less favorable results by cold applications to the neck, and by pouring chloroform or ether, drop by drop, upon the occiput and nape of the neck, thus producing cold by evaporation. In speaking of the value of the latter remedy in this disease, Dr. Chas. H. Hughes, of St. Louis, says: "when it becomes desirable to apply cold, there is no application that equals sulphuric ether poured down the spine and on the patient's head." He likes it both on account of its convenience and ease of application and anodyne effects in relieving the headache and backache. In many sthenic cases in recent epidemics, and in some sporadic cases where there is hyperpyrexia—the clinical thermometer indicating a temperature of the blood of 105° or more—the application of ice to the head and spine by means of Eschmarch's India-rubber bags, has been more or less extensively employed, and it is claimed with more satisfactory results than any other direct treatment of the cerebro-spinal symptoms. A freezing mixture has been used in the same way; but, in its use, as with ice, care must be taken not to prolong the application so as to depress the system, nor to increase depression, should any exist.

When the acute nervous symptoms are accompanied by marked prostration, as is often the case, it is advisable, during the application of cold to the head and spine, to swathe the extremities in flannels wrung out of dilute hot spirits and to surround the feet, legs and thighs with bottles of hot water or bags filled with hot salt or sand. A stimulating hot whiskey sponge bath may be used, especially on the arms and legs, and should be accompanied with and followed by friction with soft flannel. Warm oil of turpentine applied with friction, has been used and is recommended by good authority.

From the onset of the disease, strict attention should be given to the temperature of the blood, to anticipate its fall and then to apply heat externally before there is too much vital depression, or before the supervention of collapse. This can best be observed by the frequent use of the clinical thermometer, Should the temperature of the blood fall much below that of health and the cutaneous surface become cold, the hot bath (102° to 106° F.) is

urgently indicated and should be followed by friction with hot flannels or crash towels wrung out of dilute hot alcohol.

(*b.*) INTERNAL MEDICATION.—When the condition of the pulse and the aspect of the patient show manifest flagging of the vital powers, the administration of diffusable and alcoholic stimulants should be resorted to at once.

Quinine, either alone in large doses or in combination with belladonna, has been used extensively in recent epidemics, especially by American physicians, and it is claimed, with good results, when administered at the very beginning of the disease. It has been claimed that the timely use of this drug, does in some instances, seem to abort the attack. The best form in which to administer it, is the bisulphate, on account of its greater solubility, and hence, more rapid action. This form is also best for hypodermic injection, which is often necessary on account of persistent nausea and vomiting.

The early and free use of the tincture of chlorides of iron—20 to 25 drops every 2 or 3 hours—is recommended by Joseph Klapp, of Philadelphia, who asserts the recovery of a number of cases, some of which were of a very threatening character, under its use. Others combine it with ergot and claim very favorable results.

Of medicaments directly addressed to the nervous system, opium is the most valuable and reliable. Morphia is the be form and subcutaneously the best mode of administration. It s often beneficially combined with atropine. When there is much restlessness, insomnia, acute delirium, hyperæsthesia or painful spasm, it should be given in decided doses, which should be repeated as often as necessary and the effects carefully watched.

When obstinate constipation exists, opium or any of its salts may be advantageously replaced by some of its derivitives. Of these, belladonna, cannabis indica and the bromides have been found most useful.

The iodides, especially of potassium, and the arsenite of potassium have been extensively used, and have found favor with many, especially in indolent, protracted cases, chiefly on account of their resolvent properties.

Mercury is still used by some, especially the French and German physicians. It is usually given in the form of the mild chloride, either alone or combined with other purgatives and sometimes combined with mercurial infriction. It has been

given in large doses and repeated every two or three hours until the cathartic effects have been obtained; but a majority of recent authors have recognized the fact that recovery does not coincide with the characteristic dejections of calomel and this circumstance does not speak in favor of the remedy which in any event must be employed with caution. As the beneficial effect of mercurials in any form, either in alterative or cathartic doses, is questionable, their use is to be discountenanced; while their indiscriminate or heroic abuse, as formerly practiced, is to be utterly condemned.

In the earlier outbreaks, epidemic cerebro-spinal menigitis, as all other acute inflammatory affections, was treated by depletion—by venesection and repeated mercurial cathartics—with the general result that the fatality of the malady was probably much augmented. Active purgation should be avoided. It is generally considered advisable to secure free evacuation of the bowels at first, in order to rid the intestinal canal of all irritating material and overcome the obstinate constipation, often present in this disease. Mild cathartics may be repeated and assisted by enema as often as necessary, until the desired effect is obtained.

Suppression or retention of urine sometimes results; if the former, give diuretics; if the latter, cathiterize as often as necessary. In either case, relief may sometimes be obtained by the use of cloths, wrung out of hot water, applied to the hypogastrium and genitals.

In sthenic cases, where the pulse is full and frequent, cardiac sedatives may be used with benefit; but their effect should be carefully watched. Of these, digitalis purpurea is to be preferred on account of its regulating effect on the action of the cardiac muscle. Some use veratrum viride, while others prefer gelseminum; but both should be used with circumspection, on account of their depressing effects. Should head symptoms persist, gelseminum sempervirens is to be preferred.

In cases of much restlessness and wakefullness, a hypnotic dose of chloral hydrate may be given at night to secure quiet and sleep.

Electricity has been used with good effect in some cases. During the congestive stage of the disease it is said that no better application can be made than the passage of the galvanic or constant current along the spine. After exudation has taken place,

its resolution may be hastened by the continuous current used in the same way.

For the subsequent paralysis, and to counteract fatty degeneration and atrophy of the muscles and viscera, and also for its tonic action on the stytem, the Faradic or interrupted current may be used with marked benefit in some cases.

It is frequently the case in violent attacks, that the condition of the patient is such that the use of therapeutic measures is limited to subcutaneous injections and external applications. Proper nourishment may be prevented by the great irritability of the stomach, the acute dilirium and the spasms. To this unhappy combination of unfortunate and uncontrollable conditions, the inefficiency of the treatment may be attributed in part.

The principal modes of treatment have been mentioned; an extensive catalogue of therapeutical resourses has been enumerated; but in many epidemics in which they have been faithfully tried their number but corresponds with their inefficiency. Many will die in spite of every effort to save them; while others recover almost miraculously—certainly unaccountably.

We have made little progress in mastering or controlling these epidemics. Let us hope that with more definite knowledge of the disease, our efforts to cure it in the future, may be attended with more satisfactory results than has been attained in the past.

Proceedings of Medical Societies.

Article XXVII.

ST. LOUIS MEDICAL SOCIETY.

Taken by the Journal's Stenographic Reporter.

Saturday, Dec. 23, 1882.

Dr. Stevens.—I wish to state some things that I observed during my trip to the North, last June, when I attended the meeting of the American Medical Association at St. Paul. I made a trip up to the Dalles on the St. Croix and I saw a good many lumbermen engaged in floating down the logs and lumber on the river. I saw them at different places on the St. Croix and upper Mississippi. They are a very singular class of people, strong, hearty, robust looking men, a large proportion of them Swedes and Norwegians. One day while watching these people, I noticed them passing a bottle around from one to another, which contained something limpid like water and asked one of the men what it was and he told me it was alcohol. I made further inquiries, not only of these men, but of other intelligent people in the vicinity and particularly of one man, who was a contractor and who knew these people well. I took the bottle and found that it was strong alcohol. I then learned that it is a common practice among Norwegians and Swedes, and that Americans are following the practice, of drinking alcohol instead of whisky. They drink a great deal of alcohol and they claim that it does them much less harm than whisky or any other alcoholic drink they can take, that they are freer from diseases generally caused by alcoholic liquors and that they can do more labor. These were the sentiments of this contractor and the sentiments of those who have observed these men for long periods of time. I learned that it was a common practice in that country and that it was extending and becoming more and more common among the lumbermen. I was surprised at it and inquired more and more particularly in regard to delirium tremens. It was stated by those who have observed these

people, that delirium tremens is much less common among them than among those who drink whisky or other alcoholic liquors. It is a very singular fact. I had heard of this thing incidentally before this time, but there I had an opportunity of conversing with the men about it and with intelligent observers.

Dr. Dickinson.—I would like to inquire if these men frequently indulge in its use to such an extent as to become intoxicated?

Dr. Stevens.—I inquired in reference to that. They do become intoxicated but are not so liable to become intoxicated. It has a stimulating effect without such an intoxicating effect; that is one reason why they prefer it.

Dr. Rumbold.—Does Dr. Stevens know the quantity taken?

Dr. Stevens.—I saw them drink from a bottle. They generally passed the bottle around, at all other times taking it in a tumbler. It appeared to me that they took about the same quantity that men usually do of whisky.

Dr. Dudley.—I suppose the climate of the region which these men live in must have something to do with the consumption of the alcohol, if taken to the extent that whisky is ordinarily taken. There must be an additional amount of oxygen in the atmosphere in that northern climate, which burns up the additional amount of carbon, and the fact that it does not so rapidly produce the diseases that are commonly found as the result of whisky drinking, we could only account for that in the fact that it is probably more pure than the whisky we get ordinarily. A gentleman who is not a member of the society, tells me that in a climate similar to this, he has seen a good deal of the use of alcohol instead of whisky; that the climate has much to do with it. The native land of these people, as we know, is very cold.

Dr. Hurt.—If we will consider for a moment, the usual strength of commercial alcohol and that of brandy, we will find that there is little difference so far as the alcoholic strength is concerned. Ordinary commercial alcohol is not above 50 per cent. and first class brandy is not under 45 per cent. And the supposition has been always that the alcohol of commerce has injurious properties. Brandy has less of what is called fusel oil—I believe it is called fusel oil when it is distilled

from grain, but when it is from fruit, from the grape, I don't know whether that is the name or not for the essential oil. I don't know just exactly what it is that gives the boquet to the wine or the brandy; I suppose that would be the fusel substance. It seems to me that fusel oil is a heavier substance and is supposed to be more or less poisonous. I don't know whether I am correct about that or not. I have got it into my mind that that is the difference between commercial alcohol and brandy.

DR. DICKINSON.—At the commencement of the war, the stock of brandy on hand which, for the most part was imported, was very soon exhausted; we were then furnished by the Medical Department U. S. A., with brandy that was obtained from California, which was of a much lighter color; in color it differed but little from that of alcohol. The color of brandy, it is generally believed, is derived from foreign substances.

DR. HURT.—Most of the coloring matter of brandy and whisky is due to matters that do not belong to the fruits or grains from which the liquors are distilled, but such as scorched sugar, or from fruits such as apples baked until they become charred somewhat.

Hemiopia.

DR. WILLIAMS.—I saw, some time ago, a case which shows us what singular conditions we sometimes meet with in connection with hemiopia. A gentleman from Texas, consulted me in regard to a trouble he had with his vision. On examination I found that he had hemiopia; that is to say, the inner half of each retina was paralyzed. The result of this affection of the retina was quite singularly manifested; for instance, if the man looked at a person in front of him, he would see half of that person with one eye and the other half with the other eye; with the two eyes together, of course, he would see the whole person, but only half of the person with each eye. It will be readily understood that the reason for this singular condition is explained by the fact that there exist corresponding parts of the retina. It is well known that certain portions of the retina are what we call corresponding or identical parts. Now, it so happens that the inner half of each retina is not corresponding and consequently this patient saw the opposite halves of an object with the different eyes. We know that the outer half of one retina and the inner half of the other are, as we say, identical—the upper halves of both retina are identical, but the inner halves of each retina

are not identical. It is not often that we meet with these cases where portions of the retina are paralyzed which are not identical; the parts affected with this disease are usually the corresponding halves; that is, it is the outer half of one eye and the inner half of the other usually, or it is the upper half of both eyes, or the lower half of both eyes—corresponding parts are usually affected in this kind of trouble. I have seen a number of cases of that kind, but only a few cases where the patient was affected in parts that were not identical. Of course, the affection in the case that I mentioned, gives the man very considerable trouble because of the confusion of vision; his vision was not distinct or perfect, in fact, it was quite defective and the confusion arising from the condition of his eyes was very annoying to him. The history showed obscure brain trouble, exactly what, I couldn't make out; the trouble was not, therefore, in his eyes, but in his brain and the history showed that he had had a very decided brain affection; I took it to be probably a chronic inflammation of the meninges, though that was a mere supposition. I examined him very closely and explained the trouble to him as well as I could and gave a rather unfavorable prognosis. I prescribed for him and feel much gratified to hear that he is getting well. He is improving very rapidly and very unexpectedly. I gave him the iodide of potash and bichloride of mercury, as I supposed there was some chronic inflammation at the base of the brain or in the substance of the brain which this alterative treatment—so-called—might relieve and I am glad to hear from him by letter, that he is improving both in the vision and in his general health, which was not good—he was feeble and rather delicate, slender and not well nourished He had had difficulty in sleeping. He is rather advanced in years and I was a little suspicious that he might be apopleptic; but he has improved decidedly. Affections of this kind are interesting from the fact that they produce such singular phenomena—such as I have mentioned. All of these phenomena, of course, can be explained on the anatomical effects that we know of the decussation of the optic nerve.

DR. DICKINSON.—Is that on the theory of total decussation?

DR. WILLIAMS.—That is more than I know, sir. I asked him carefully in regard to a syphilitic history; he stated positively that there was nothing of that kind—he had never had anything

of the kind that he knew of; so I couldn't put it on that ground at all.

DR. DICKINSON.—I would like to ask one question: was the temporal half of the retina of each eye affected?

DR. WILLIAMS.—The inner halves—the nasal half.

DR. DICKINSON.—Then he had temporal hemiopia?

DR. WILLIAMS.—He has nasal blindness; the sides next the nose were blind.

DR. DICKINSON.—This is a very interesting case and involves the consideration of the question, whether the decussation of the optic nerve fibres at the chiasm is partial or total. Semi-decussation of the optic nerve fibres which is the one that has been held and taught in the books for 165 years or more, is simply an hypothesis, made originally by Sir Isaac Newton, in 1704; and thus it remained without any question until it was comparatively confirmed by Dr. Woollaston, in 1824; and this subject remained accepted and unquestioned until about ten years since, when investigation by several anatomists in Germany showed that the semi-decussation was not only an hypothesis, but that it was not sustained by anatomical facts; inasmuch as these anatomists demonstrated by careful and actual pursuit of the optic nerve fibres from beyond the optic tract and into the optic nerve anterior to it; through the chiasms and into the optic nerve anterior to it—that is they followed the fibres continuously and thus demonstrated that decussation was entire. It is a well known fact that in fishes and in most of the birds the decussation is total, and in many animals, such as the hedgehog and mole and bat, the decussation is total. We will suppose this diagram to represent the eyes (illustrating on the blackboard), here is the origin of the optic nerves on the brain, here is the decussation, these are the corpora quadrigemina. Any little accident to the gyrus, or according to Ferrier, to the occipital lobe, according to Monk, will produce amblyopia of the eye of the opposite side temporally; but the destruction of both the angular gyri will produce total blindness (Ferrier), and the same result will follow the destruction of the occipital lobe (Munk). It has been found by Biesdiadecki, Mandelstamm and Michel, independently of each other, that all the fibres are continuous from the optic tract through the chiasm to the optic nerve of the

opposite side. Now the view that is ordinarily given is, that a part of these fibres decussate and a part do not (illustrating again): that is, that a part of the fibres that come from the right side decussate at the optic chiasm, while a part of them do not; some of them pursuing a nearly parallel course until reaching the chiasm and they then bend outwards and go to supply the external half of the eye of that side, while the central ones, crossing each other, pass to the eye of the other side. That is what is taught in the books of to-day. Now, either semi-decussation is true, or total decussation is true; the former is an hypothesis, the latter is a demonstration. Which shall we accept? The latter is not denied; it is simply argued that it is not proven. If this be true, then pressure upon the left optic tract by a tumor, will affect not only the fibres that go to the outer half of the left eye, but the inner half of the right eye; hence there will result bilateral hemiopia and vision will be towards the left; whereas, pressure on the right optic tract would affect the outer half of the retina of the right eye and the inner half of the left eye. If we have pressure here at this point (anterior angle) on the fibres which are distributed to the inner portions—the nasal side of both eyes, then we have temporal hemiopia. In the case related by Dr. Willaims, doubtless some pressure exists at this point, producing incapacity of the inner portions of the two retina to observe objects.

DR. STEVENS.—Do you say that it has been demonstrated that there is a total decussation of the fibres; that those arising on the right side pass to the left eye and that none arising on the left side pass to the left eye?

DR. DICKINSON.—Such has been the demonstration of the three gentlemen whom I have mentioned.

DR. STEVENS.—It is contrary to all the teachings that I have observed of Gray, Cruveilhier, Quain and Charpie and I based my teaching upon their opinions. I don't know that their opinions were based upon positive demonstration. I always taught that only a portion of the fibres arising on the right side, passed to the left, through the chiasm; that is without passing backwards behind the chiasm; that is what I taught, based upon the teaching of those eminent men. I am not willing to give it up until it can be fully demonstrated. If you say it has been demonstrated and can be, of course it must be given up.

DR. DICKINSON.—Such was the doctrine held for 165 years but it was simply an hypothesis, that has been exploded by these three gentlemen, independently of each other. It is a well known observation, that in cases of hemiplegia, in consequence of some affection of the brain, in which the trouble is on one side, affection of the eye, if it occurs, is on the opposite side from that which is affected. That is either worth something in an argument of this kind or it is worth nothing. If one side of the brain is affected and we have the eye of the opposite side affected as a consequence, or as an association—coincidence, it is rational to refer it to the same original cause; and if there is an affection on the left side of the brain, it is the right eye that is usually rendered amblyopic or amaurotic. The semi-decussation theory has not been anatomically demonstrated as satisfactorily as that of total. We have had the total decussation demonstrated by several observers within the last ten years and so far, it has not been refuted.

DR. WILLIAMS.—You will remember, Mr. President, that some years ago, Graeffe reported a case where he had made an autopsy of a young girl who had a large tumor which involved the entire optic chiasm, and so completely destroyed the chiasm that at the autopsy they couldn't discover any of the optic nerve fibres in the optic chiasm at all, and yet the vision of this person was not affected in the least; so that shows that we may have very serious trouble in any part of the nerves and still have no disturbance of the vision occur; so that I say we know very little about the nature of this optic chiasm.

DR. DICKINSON.—It may be demonstrated eventually that decussation is not essential, is not *indispensable* to vision; bringing *en rapport* corresponding parts of the two brains and normally existing, the corpus callosum is in some instances wanting and fair intelligence enjoyed. Veralius records one such case. Such a specimen is also in the Museum of the Westminster Hospital, London.

DR. BERNAYS.—I think I can throw a little light on this subject by relating in what manner the examinations have been approached by anatomists. The old anatomists simply had small magnifying glasses to assist them in their dissections and the earliest anatomist believed that there was a complete decussation —a complete crossing of the fibres from one side to the other.

Soon after that the microscope was employed and sections of the chiasm were made. It is a very easy matter in a section of that kind to see that all the fibres do not cross from one side to the other. It seems that the fibres in the optic nerve are not only such fibres as go to the retina, but there may be fibres also in the sheath of the optic nerve which are of a sensitive, or, perhaps motor nerve supplying the muscles in the eye, perhaps even some muscles of the eye-ball, therefore we cannot prove whether the fibres that do cross are of the sensitive or motor kind, or whether they are of the kind that go to the retina; besides we often have loops in the optic nerve fibres; we have a fibre running for a distance and then turning back upon itself. It is very difficult to follow these under the microscope; but the subject has been approached lately in the following manner: A chiasm was carefully dissected out of the fresh cadaver—either animal or human—and treated in the best reagents, and it was then divided into consecutive section as it is made, is put upon a separate slide and numbered. I think one gentleman succeeded in making as many as 85 or 95 or even more of these consecutive sections; they were very thin and it was thought that by a careful examination of one section after the other, the course of the fibres could be traced in these consecutive specimens; but it was found to be impossible to arrive at a conclusion even by that accurate means of observation, because we couldn't tell whether some of the fibres that formed the chiasm before it enters the sheath of the optic nerve are all specific optic nerve fibres or sensitive or motor fibres. Now, in a very fine section of that kind we see fibres running this way (indicating on blackboard) and we see fibres forming loops of this kind, and besides that we know that within this sheath there are not only specific optic nerve fibres, but there are also, as I said before, fibres which couldn't be distinguished by the microscope; there is no reaction or staining fluid which will show whether they are sensitive or motor fibres in these millions of fibres we find in here from the specific fibres. We cannot distinguish them by the eye and therefore it will be easily understood why the question cannot be decided at the present standpoint of investigation.

DR. STEVENS.—I hope Dr. Bernays understands the statement of the President. It was made before he came in. He states that it has been demonstrated that all of the fibres essential to

vision belonging to the retina that arise in the right hemisphere, pass to the left eye, and all that arise on the left side, from the corpora quadrigemina, pass to the right eye; that is the statement.

DR. DICKINSON.—I simply repeat the demonstrations that are are on record.

DR. BERNAYS.—I don't see that the president can give us a better explanation. By quoting those authorities he has proven nothing. I know that the drawing I have made here is correct and it can be seen by any one who will examine the specimens. The fibres do not all cross. It will devolve upon those authorities to prove that they all cross and that they are all specific fibres.

Specific v. s. General Medicine. By M. Blont, M. D.

There is no end to refinements in the practice of medicine. The reasons for choice of remedies lie, first, in knowledge of the specific action and second, in knowledge of the result of their exhibition. With knowledge of the specific action of remedies, it is necessary to have an accurate knowledge of the pathology and to know in full, the morbid cause, whether specific or common, of the pathological condition, in order that remedies employed may be used with discrimination and intelligence. In this line must the evolution of medical knowledge proceed. Here there is to be no peradventure, knowledge shall reign supreme; cause and effect will be traced with equal ease in either disease or treatment. It is in this line that our great advancements have been made; the microscope, physical diagnosis, autopsies, vivisections, experiments of all kinds pursued with untiring energy, have not failed to increase the amount of medical knowledge. The increase in knowlege, has, however, been confined principally to the phenomena of disease and the physiological action of remedies; pathology has made immense strides while we remain in almost primeval ignorance of the natures of the causes of pathological conditions and are likewise unconscious of the *specific modus operandi* of our remedies, necessarily so, for if ignorant of the nature of the morbid cause, we cannot know how its antidote works; for instance, we know that quinine cures malaria, we have never ascertained definately the nature of the malarial poison and cannot therefore say in what

manner the quinine antidotes it, we can but assert the fact, for which experience vouches; thus we have the second reason for choice. This second preference is empirical; it comes from and is the result of actual observation of the action of the same remedy in different morbid states, or of different remedies in similar morbid conditions; no reason for choice being given further than that in such conditions, experience has taught this remedy to be preferable to that.

Theories as to why one remedy is beneficial and another detrimental, of course exist, but often it is all speculation and not knowledge; the empiric has theories, as the rationalist has theories of these things, but who amongst us *knows*?

The conscienscious young practitioner, anxious that the welfare and perhaps the lives of his patrons, may not be trifled with, with the realizing sense of the awful responsibilities of his calling and too honest towards his patients to allow the charge of wilful ignorance to lie at his door, is appalled at the tons of volumes written upon these subjects; and too often does he lay aside a volume, perused in the eager hope of obtaining light, with a feelng of disappointed anguish and sometimes, it is feared, with a sense of disgust at the meagerness of real knowledge imparted by a man reported to be a savant.

How mysterious is disease; how helpless we feel in its presence. We alleviate suffering, yet how seldom can, or do we combat the specific cause of that suffering, thus by intelligently preventing the operation of morbid elements, relieve the anguish of the sufferer and fit him to mingle again in the affairs of life.

Specific treatment is the exception and not the rule. Reliance upon the inherent powers of the system to bear the strain put upon it, the *vis medicatrix naturæ* is the main, the only hope in the majority of affections. How few among the many specific conditions which we are called on to treat, can we attack with a specific antidote. Preëminently sepsis, non-specific putrid degeneration of the tissues; this is perhaps the only condition we treat knowingly, intelligently. Ignorant of their specific cause, we are, nevertheless, in possession almost as certainly of the specific antidotes for acute inflammatory rheumatism, anæmia and malaria; others might be inclined to extend the list further, as for instance, aconite in acute dysentery, arsenic in certain skin disease; I cannot follow them, I tremble lest I have with this small list, granted more than is true; but grant them, there is

much left; with what remedy can we prevent or abort the erethema, a diphtheria, a syphilis?

The specific treatment of these diseases lie, in the present state of our knowledge, in their prevention, and even there our course in not intelligent, but general principles must obtain. Is malaria extremely prevalent, decaying vegetation is decried, damp cellars, ponds and sewerage form the hobbies which our sanitarians ride to death. Yellow fever the same, diptheria, scarlatina, even the mumps, all are saddled on the garbage, sinks and gutters. Does small-pox or typhoid fever or cholera come, filth is decried, all modern improvments in houses, ventillation, water closets, cess pools, the streets and alleys reeking with decaying vegetation and mud, all come in for blame. These things, the filth, garbage, mud, bad ventillation, bad sewerage, like the poor, we have always with us, yet we are at times free from all the plagues enumerated in connection with them; so that while they may, one and all, and doubtless do predispose toward, furnish channels through which the evils come and do, unquestionably, augment their virulence; yet figthting them is not fighting the foe; fighting them is but pulling down the bridges over which the foe advances, without destroying his nature for harm or ability to come upon us by some other avenue.

It is universally conceded that in specific diseased conditions, certain morbid trains of phenomena are dependent, each separate concatenation of symptoms and conditions, upon a specific morbific cause, that this morbific cause will, in each case, engender only like phenomena in operation upon different human sucjects; that small-pox will never beget other than small-pox, cholera its kind, malaria the same, and so on; therefore to admit to treat them all alike or with the same general and immediate object in view, or with the same medicine, is to state that *practically* we know no difference between one disease and another. This is in reality the case. No specific remedies being known, general treatment is instituted with modification of remedies to suit the peculiar phase of the disease as it is shadowed forth, specific medication being impossible.

The wisdom of this course, with our present knowledge of modification, is what gives such repute to the expectant plan of treatment, yet the very name of this, our most exalted system for the treatment of disease, but discloses the sad state of our evolution and depicts with graphic force upon the thoughtful

mind, the poverty of our exact knowledge. This poverty is in ignorance of the exact nature of these various causes of morbid action and of the mode by which they fasten upon the human system and in the remedy which would be for each or all a certain and triumphant antagonist in a battle conducted within the portals of the human body. For the want of this knowlede we have not advanced in the treatment of these specific diseases beyond the routine general system of invigorating the body by aiding or controlling the offices of the emunctories, affording rest and ministering to assimillation of our patient. These are the cardinal principles of practice to-day; further than that we dare not with intelligence go and often not that much is done intelligently in either specific or non-specific trouble, owing to an ignorance in the pathology of the affection or the action of the remedy employed, as when an expectorant is given to relieve the engorgement of a first stage of pneumonia, or when an opiate is given to relieve pain consequent upon the presence of indigestible materials in stomach or intestines.

The winning of these outposts, seeing that the offices of the emunctories and that assimillation and rest are attended to, constitutes the campaign under the expectant treatment. Remedies employed are either approved or candemned, as their understood action affects the pathology as we understand it to be at the stage when the remedy is given. There is no pretense whatever of combatting the *specific* morbific cause; "meet indications as they arise," is the dogma; the urgent symtoms only are treated and the disease is left to "run its course," the *vis medicatrix naturæ* is called on in every instance and it is always a question—to use a homely expression—as to whether the patient or the disease is the stronger. Fortunately, the majority of diseases are self-limited, within a certain length of time, generally from two to three weeks if let alone, they do all the havoc they can within the system, and then subside, in many instances, never to again reappear. This is fortunate, for, take a disease that is not self-limited and you have a disease prolific as a cause of misery or of death. Consumption is one such; of what benefit is the relief of symptoms? The foe makes insidious but sure progress under the most effectual anodynes. More adults die of this one disease than any other because we know not how to antagonize its specific cause.

Lack of information of appropriate remedies wherewith to

render these specific causes of evil inoperative within the system, is the real reason why the percentage in death rates in these diseases is so little improved now to what it was centuries ago. Symptoms only, were treated then; symptoms only, are treated now. That such will not always be the case, we may feel assured from the progress already made: we no longer treat the symptoms of blood poisoning blindly, but with intelligence prevent the access of that dreaded condition; such, doubtless, in time will be the treatment of all the ills that flesh is heir to; may that time not be long delayed.

It will thus be seen that the category of diseases solely treated on general principles, is a long one; specific medication has confined in its advance, principally to the relief of symptoms. Ignorant of the specific cause, we can yet ammeliorate the suffering and are thereby encouraged to go on in the duties of our calling.

DISCUSSION.

DR. PORTER.—If all this be so there is certainly much more to learn yet than has been learned. We have to come to this conclusion after all. It is a confession we can readily make I suppose from our experience, to-night in a sort of class meeting or confessional. We say sometimes that we do but liltle good, and yet is this true? While coming this evening with a friend, to the society, he remarked, that the greatest rewards that we have is the fact that we know sometimes that we do good in our practice, that we do ameliorate pain and cut short disease; that sometimes we do save life. Now, do we accomplish at all times simply by expectant treatment? Are we simply as men who watch the living and bury the dead, or record the death? There is something more than that in our treatment; that is, we differentiate symptoms of disease and we do use treatment that is applicable alone to the disease which we are fighting. It is true that there are many symptoms that are prsent in all diseases and we have to treat those symptoms; but we can often find a disease that is well defined where the symptoms point to a single definite cause and we can so concentrate our remedies that a specific end is attained; and I can say without fear of successful contradiction: that the greatest advances that have been made during the past three decades, have been in the way of specific medication. That requires a little thought to

obtain universal consent, but specific action has been the platform upon which most of us have been, and are now working; and I believe that the best results obtained from the treatment of such diseases as the Doctor has mentioned, have been obtained as a result of specific medication; and in those diseases in which we can not yet find a specific cause, certainly there has been much done in the way of specific work. I am not borne out by my own line of practice alone in this matter. Even in that disease which we so much dread—phthisis—there has been great advance made. The Doctor, in looking over the records, will find that the death rate of phthisis now is almost 15 per cent. of all deaths, less than it was 1840. The reports of the British Register General show that soon after the introduction of specific treatment—even as then applied—the percentage rapidly decreased, so that within twenty years there was a decrease of 10 per cent. throughout the British Empire and that percentage, I think, is now more. We must remember this: that in the treatment of all diseases, we are not dealing with fixed laws. The astronomer can work from fixed and definite laws, but it dealing with man, we must remember that we are dealing with something which is subject to constant changes; our remedies do not always produce the same result; but that does not detract from what we are pleased to call specific medication. We have to harmonize and so change our treatment as to meet the individual exigencies of the case. I would be loth indeed to surrender what little—and it is very little—I know of specific medicine, taking in place any new or all the old ideas of general medication and if we are ever able to do more than we are at the present time, it must be because we follow out the line of specific medication. Yet general medication—general principles—must not be forgotten.

DR. HURT.—I don't get up to criticise this paper, and yet I have some objections to it. My friend, Dr. Porter, seems to think that the paper does not give us credit for what we are entitled to. My objection is that it tells too many solemn truths that we cannot refute; and while I concur with my friend, Dr. Porter, that we experience in our lives, great consolation in the fact that we cure some cases; I rejoice in a higher consolation in the fact that some of my patients have gotten well, notwithstanding the treatment. Now, with regard to specific medication. When we can satisfy ourselves that we have found the specific

cause of disease, there is hope,—and I am not living in dispair on this subjeet—there is hope that we shall, some of us, live to see the day of specific medication, and to see it poplular and prevalent. Until we reach that point in the causation of disease, however, general medicine and the expectant plan are the most rational it seems to me.

DR. GREEN.—I think we have to make clear what we understand by specifics. Do we understand, or does any one understand that each disease should have a different remedy; that, for instance, there should be a remedy for small-pox; a remedy for measles, a remedy for scarlatina? Is this what you mean by specifics? Such specifics do not exist. We don't treat diseases that way. But if we consider specifics in this manner, that we are applying for certain morbid symptoms that occur in one and another disease, certain remedies, then we may say in that sense we have specifics. Now, for instance in small-pox, scarlatina and measles, there is a prominent symptom in these three diseases: very high fever, high temperature. That is the most dangerous; it will kill the patient. You direct your remedies to lower the temperature; of course, we can do it in a great many different ways. We might do it by applying cold applications to the patient—by a cold bath; another will say, give digitalis; another, quinine; another, aconite, and so on; but we all have the same object in view in this treatment: to lower the temperature. In this sense we have a specific. Now, when we administer quinine, what do we give it for? We give it for its antipyretic properties, because it acts against these small organisms which bring about this high temperature. Don't forget, gentlemen, when there is high temperature, there is infection. I will not say that the infections in those diseases which have as a prominent symptom, high temperature, are always of the same kind of contagion; but although these small organisms which cause these diseases may be actually different, still we have these remedies which we can apply in all these cases. To be sure we cannot always use the same remedy; we must suit the remedy to the condition of the patient. So that in this sense we have specifics and at the same time with these specifics, we have a general treatment. That is the only way the rational physician can treat disease. His experience is based upon science. We are putting away the text-books which are inscribed: "Theory

and Practice of Medicine." We do not see any more new works with this title. We are calling them as the Germans do, Special Pathology and Therapeutics; that is just the thing, sir.

DR. FAIRBROTHER.—I have been interested in the paper and have no unfavorable criticism to make on it, only it may be that it takes a little too much of the strain of lamentation upon the materia medica, too much of the doubt of our ability to do anything; of our not being able to cure disease specifically. We hardly look for such a thing in a young man. When men get gray and tired, out of patience sometimes, we excuse that kind of strain—that kind of dirge, but we hardly look for it in a young man; we look to hear a hopeful, an industrious theory in them. The do-something hypothesis is always at base, the best too. There are a hundred things we can do in diseases, if the disease is specific and we have no specific remedy, and many of these things that we do will not only prolong the patient's life, but save it in many cases, as has been well set forth by my friend, Dr. Green. The energetic and judicious treatment of dangerous or painful symptoms, has much to do with the patient's getting well—much better than the expectant plan in most cases. I would not like the expectant doctrine upon which to treat my friends. It is true there are not a great number of specific remedies entirely settled upon, but there are some, and to our great credit the number is increasing; and such is the character of specific remedies relating to certain specific diseases, so clear is the connection between some of these remedies and some of these diseases that we feel safe in the application of them. We do not look for the day when any sort of a millenium shall begin in which we will find a specific for every disease, and I don't know that we would be benefited by that kind of condition of things in any respect. There is enough reverence for medicine already with all its faults and failings, and if we were more powerful, if we had more control over diseases there would probably be a mystery attached to it and a reverence for it that would be to its disadvantage. so long as there are failures there is cause for work and that industry results in improvements in many directions. Then umber of diseases that we are inclined to classify as specific seems to be increasing, and I have had occasion of late to observe what I think is probably a new specific disease. It may not be new at all. It may have been observed by many,

but not by me before, and I have called it malarious septicæmia. In the fall when the season for the prevalence of malaria came, I found developing in many patients blood poisoning upon trifling sores and recently in some cases without any abrasion of the surface, producing all the effects of septicæmia and even resulting in death. I have seen a number of cases of that kind this fall, and Dr. Mudd saw two cases with me which I have classified as malarious septicæmia. They were cases of septicæmia with an evidently malarial origin, specific like scarlet fever, like typhoid fever, like small-pox, like syphilis, all of which we consider specific, and for which, as individuals, we do not have any specific remedy, but with our remedies we can greatly assist sometimes in prolonging the life of the patient and sometimes even saving.

DR. WESSELER.—In regard to septicæmia I will state there have been a few deaths at the hospital caused by a sinilar cause to that spoken of by Dr. Fairbrother. There was œdema of the extremities in one man. He had a swelling in the groin apparently originating from a sore foot. The man died. There were two deaths that occurred in that way. I am satisfied that they were malarial in their origin.

DR. GREEN.—I don't believe in malarious septicæmia. But still I will not deny those facts which Dr. Fairbrother and Dr. Wessller have observed. We may have malaria and septicæmia together, I do not deny that. But I will not indorse the explanation. There is either one thing or another. The patient was probably laboring under malaria and came in contact with something that will cause septicæmia. We must remember that not every individual that comes in contact with poison will become infected with septicæmia. Take for instance students dissecting a cadaver; one becomes so engaged in his dissection and cuts himself. I have done it myself two years ago. I did not feel it at the time. I did not get poisoned from it. Why? Because my body possesed the resistance necessary to throw off the poison and prevent its taking hold. In some persons it would become putrid. So that if these bacteria, or micrococci come in contact with a person and he has power to resist them he will not be effected. If one is weakened by malarial fever he has less resistance and is more liable to be infected by coming in contact with contagious matter than a healthy person.

DR. JOHNSTON.—The term putrefaction was used by the gentleman who has just taken his seat, and who criticised D. Fairbrother's use, in designating a disease, of the term malarial septicæmia. Now the question comes up: what is putrefaction? Tyndal says it consists of animal life termed bacteria or minute oranisms: and that I believe, is the received opinion. Now Dr. Fairbrother tells you he has seen some cases that he terms malarial septicæmia. Now the question comes up: what is septicæmia? A poison. What is a poison? That is either an acid or an alkali, or it is a living organism. I thihk if Dr. Fairbrother had taken a specimen from these cases and examined it with a microscope he would have seen millions upon millions of bacilla. And that is septicæmia. We cannot mean anything elre.

SATURDAY, Dec. 30, 1882.

Syphilitic Paralysis.

DR. JOHNSTON.—An old patient of mine called to see me this afternoon. His condition is rather an unpleasant one. He is partially paralyzed in both legs; there is also partial paralysis of the tongue and both pupils are permanently dilated. There is also a slight convergent strabismus on both sides. To understand the condition of this patient, it will be necessary to go back several years. About '63 or '64 he consulted me in regard to some sores on the penis, which I found to be hard chancres, one on the frænum and the other on the prepuce. They were syphilitic, evidently. I cauterized the chancres, applied a dressing of carbolic acid and sulphate of zinc, rose water, etc. The sores did not heal very rapidly, but thereupon in the left groin he had a bubo that remained swollen for six weeks or two months, when one of the glands suppurated. In the course of two or three months it healed and the chancres healed. Within about from four to six months, he broke out all over with tuberculous syphilis. He was mercurialized during that condition, the proto iodide of mercury being the one that was used; bichloride of mercury, followed by quinine was also used. The eruption lasted a couple of months, when it disappeared and to all human appearances he was well for over a year. Perhaps two years following that, notwithstanding he had been put on mercury and iodide of potash, there was a node on the left tibia,

accompanied with intense pain and suffering. He finally went to Hot Springs and was under treatment there and was given enormous doses of iodide of potash; that was in '72 or '73. He came back, to all appearances, perfectly well. The skin was clear, appetite good, and he was active in attending to business. About three winters ago, he fell suddenly on the ice and came to the conclusion that he had broken or dislocated his hip. He sent for me and I found that his hip was not dislocated at all. He was suffering with severe neuralgic pain in the left ischiatic notch and also partial paralysis on the left side. Again I put him under a mixed treatment: Iodide of potash and mercury, followed by tonics. Last September he had a second stroke—he seemed to have recovered from the other and I sent him medicine, continuing the treatment. To-day he was in my office, in the condition which I detailed. He has loss of memory, loss of power to write his name, but recognizes all his friends and is able to move around; he has a pretty fair appetite. Now this is evidently syphilitic, and is, I believe, owing to the syphilis he contracted at least sixteen or eighteen years ago. I thought he was well, but now I am satisfied that when we have a true case of syphilis running into the tertiary form, we never know when the patient is well. He may be well but you cannot demonstrate it.

DR. HURT.—How old is the patient?

DR. JOHNSTON.—He is about fifty-seven years old.

DR. LOFTUS.—I would like to ask Dr. Johnston what his experience has been in the treatment of syphilis and whether he has had many cases such as this?

DR. JOHNSTON.—I have only seen two or three cases of this kind. This man has been under my observation all the time.

DR. LOFTUS.—Did this man have any children?

DR. JOHNSTON—I will state that I don't think his wife has ever been contaminated. She is a rugged, active woman. I have seen no manifestations of syphilis upon her whatever. I have seen a good many cases of syphilis, that were, to all human appearances, cured, the men marrying and raising large families. It has been recommended that when a man contracts syphilis, we should adopt a heroic course of treatment; that is, to give large doses of mercury, and it was claimed that we would thus prevent secondary accidents. Now, I have tried that; I have

put a patient through that course when they have come to me with a hard chancre, and it is rarely possible to cut off the disease and prevent the secondary accidents from following. Under this treatment they may get well, but in the course of from three to six months you will have the constitutional effects of the syphilis manifesting themselves to a greater or less degree. I think the modern treatment consists in the constitutional treatment adapted to the idiosyncrasy or peculiarity of the patient. The treatment must depend upon the peculiarity of the person whom we are treating.

DR. DICKINSON.—This is a very interesting case and illustrative of the latency of syphilis. In the case I cited, of hemiopia, the gentleman contracted syphilis eighteen years previously. He was treated at the same time for that disease and was supposed to be cured. He has had no manifestations of syphilis for eighteen years. This manifestation came on quite suddenly while he was seated at the dinner table. When he sat down both of his eyes were perfect, but while the servant was passing some food to him, he noticed that he could not see to the left. While under treatment his sight was considerably broadened and he could see twelve or thirteen inches in front. He could see nothing an inch or an inch and a half to the left at first, but this was much improved under treatment. He could see a distance of eighteen inches to the left, after being under treatment for a couple of months.

DR. MULHALL.—In answer to the question of Dr. Loftus, I think I can say something interesting to the society. It is not an opinion of my own but one of Mr. Hutchinson, one of the closest observers of syphilis that ever lived, perhaps. I was reading, one day, the article in Reynolds' System of Medicine on syphilis, which was written by Mr. Hutchinson, in which he stated that not more than 25 per cent. of syphilis was curable. I called on Mr. Hutchinson some time afterwards and asked him if he still thought that not more than 25 per cent. of these cases were curable, and he expressed some astonishment that he had written such a thing. The article was written some seven years before my interview with him. He then told me that he had changed his view if he had written such a statement, and that he had now concluded that with proper treatment of the patient—if he was kept under his observation for three years and followed

the generally recognized treatment among the greatest syphilographers of Europe, at least 60 per cent. were curable. That is an interesting fact. I don't know that Mr. Hutchinson has yet written that; he told me so. I believe his method of treatment is more to the effect that the patient is to observe hygienic measures, live very strictly, and take small doses of mercury for the period of two or three years. The preparation which he uses preferably, is mercury and chalk, one grain three times a day.

DR. JOHNSTON.—I will state in regard to Mr. Hutchinson, that in a debate in London in 1881, in which he took part, they all agreed that syphilis is not so virulent a disease now as it was twenty-five years, or fifty years, or at least a century ago. That from some cause, either from being transmitted through the human species or through the hygienic conditions, the disease was naturally wearing itself out. They agreed that it is not so virulent in its character on the human organism as it was eight years ago. Jonathan Hutchinson held, some years ago, that the true Hunterian chancre was incurable, but it seems that he has changed his opinion. These gentleman say that the virulency of the disease is becoming modified and I am satisfied that they are correct, from my experience. Now, what is the cause of this? Is it that it depends upon the general inocculation, that we are all more or less syphilitic by contact or contagion, according to Beck's theory? Is that the cause? or is it that the disease is wearing itself out? Does it depend upon a peculiar hygienic condition? I think that has much to do with it. It is a very virulent disease in Mexico, and here up North where the people are semi-civilized. We know that the lower animals, with the exception perhaps of the dog and monkey, do not take syphilis. Our treatment may have something to do with it. I am of opinion that it does modify syphilis.

DR. HURT.—I suppose when we compare the symptoms and course of syphilis that comes under our observation at the present day, with what we read of during the early history of this disease in Europe and Africa, we might concede that this disease has undergone some modifications, and that its symptoms are milder than they used to be; but so far as my own observation is concerned, I don't see any difference between the syphilis of the present day and the syphilis of my early professional experience. I think the disease is quite as virulent and if I am not

mistaken, quite as prevalent now as it was when I first entered the practice of medicine, some thirty years ago. It is very evident to my mind, that this disease is the result of a specific virus, and while I am willing to admit there is something that addresses itself to the approval of one's mind, in the idea of cultivating a tolerance of certain poisons, I have not yet been satisfied that we have all become sufficiently tolerant to syphilis to become indifferent to it; and as to inoculation and the idea of syphilis proving a protection against subsequent inoculation, it may be consoling to some to reflect upon the fact of having had it once, but I have no disposition to deny them any consolation they may derive from that idea. I have been much encouraged of late, however, with the idea which now seems to have possession to a very great extent, of the scientific medical mind, especially of some portions of Europe, that we are reaching the specific causes of most all diseases, and by a process of cultivation of these specific causes, in the shape of microscopic germs, we are capable of bringing them sufficiently under scientific control to enable us to infect the human organism by degrees, or by such infinitesimal doses of the virus as to gradually bring it to a state of tolerance, but whether anything ultimately satisfactory is going to grow out of this idea, time only can determine. Now, so far as the treatment of syphilis is concerned, we all seem to think that when a man has syphilis, we must give him some preparations of mercury and I suppose that as a rule, this is well enough, but I am very well satisfied that we cannot rely upon mercury exclusively in the treatment of syphilis, for the very reason that all men and women are liable to become infected, and we know very well from the use of mercury in persons who are not syphilitic, that it is not every temperament, or every constitution that will tolerate the use of mercury to any extent that would be satisfactory in the treatment of syphilis, and for that reason we cannot rely upon mercury. This fact we know, or ought to know very well, that mercury, when taken sufficiently long and in subjects that are decidedly sensative, will produce inflammations that are so very analygous to syphilis that it is doubtful, in my mind, whether it would be better to have the syphilis or the mercury. Mercury may assume the form of a chronic affection that perhaps in 50 per cent. of cases will deceive the practitioner, unless he is alert and he will mistake it for the symptoms of syphilis; and I

can imagine people to have mercurial poisoning and syphilitic poisoning at the same time, complicating the case and making it more intractable and placing it still further beyond the possibility of treatment successfully, and for that reason I think we should always be careful in administering remedies that have proven before and are still most worthy of our confidence in the treatment of this disease. In the commencement of the treatment of a case of syphilis by mercury, we should proceed very cautiously until we ascertain the degree of tolerance that the patient has for the remedy; and whether you have determined that fact or not. I think it is a very good rule to arrest the treatment at any point and at any time when you become satisfied that the disease is not progressing satisfactorily, and try something else. Some persons are already anæmic and if they have syphilis, either primary or secondary, it is possible that a few doses of mercury will improve their condition, because it has been, to my mind, satisfactorily demonstrated by Dr. Keys, of New York, that when mercury is given a certain length of time, in small doses, it so acts upon the nervous system, or upon the mucous membranes, or perhaps on the mucous membranes through the nervous system, as to prove a tonic or stimulant and increases the red corpuscles of the blood, so long as this is the result of the treatment, of course, that will be a good remedy, for we know very well that the tendency of syphilis is to rob the system of this class of blood corpuscles. A patient suffering with chronic syphilis is extremely pale and exhibits a very decided want of the red corpuscles in his blood; and if you push your remedy sufficiently far, you all know very well that it produces the same effect. That it is a matter requiring insight, discrimination for the medical man to determine when it is right and proper to administer this remedy, or to withhold it and resort to tonics, such as we know will have the effect of building up the constitution of the patient, add vigor to the system, enabling the *vis medicatrix natura* to throw off the disease.

DR. OHMANN-DUMESNIL.—Regarding the treatment of syphilis, I think one of the principal points connected with it is to determine the time when active medication ought to be instituted. I think, as the last speaker said, that tonic treatment is very necessary, but the time to begin that is immediately after infection, has been determined. It is generally conceded that, as a

rule, the secondary sypmtoms will appear, no matter what treatment is instituted; that if this treatment is instituted immediately upon the appearance of the chancre, the secondary symptoms will appear at a later date. Then it is more rational to let the secondary symptoms appear at as early a date as possible and after that immediately adopt an appropriate and active treatment. I think the more important question is to determine whether the patient has syphilis or not. A great many patients have been treated for syphilis that have never had the disease; and it is probably due to this fact that we have so many rapid and marvelous cures. For this reason the patients should be inocculated to determine whether they have the disease or not. Unicists never resort to this method, as they regard all venereal sores as syphilis. Inoculation, however, is one of the most certain means of determining the presence of this disease. Some German method of treating the disease is to employ a tonic treatment until the secondary symptoms appear and then give what is called the active antisiphilitic treatment. It is the most rational one to pursue.

DR. HURT.—I don't understand that you can auto-inoculate syphilis.

DR. OHMANN-DUMESNIL.—I wish to say that if it is the non-infecting chancre, you will produce auto-inoculation.

DR. HURT.—You cannot inoculate with infecting chancre.

DR. JOHNSTON.—That last assertion of the Doctor is rather new to me. That you can inoculate a non-syphilitic chancre, but a true infecting chancre, you cannot inoculate. Now, if I understand the Doctor over there, there are many sores that are not syphilitic. A sore is a lesion of an organism and when we apply it to syphilis, we mean that there is something specific in it.

DR. OHMANN-DUMESNIL.—I would like to call the Doctor's attention to the fact that modern syphilographers have discarded such terms as hard and soft chancre and use "infecting" and "non-infecting" chancre instead.

SATURDAY, Jan. 13th, 1883.

DR. WILLIAM PORTER.—Mr. President, I have a most interesting case to report this evening. It is a case that has excited a great deal of attention abroad and has been noted in the German, French and English medical and daily press. The case is one that has attracted the attention not only of the profession, but of business men wherever the unfortunate man has presented himself. Simeon Lodenski is well known to the surgeons of Europe. Five years ago, when he was twenty-one years of age, he with nine others were traveling to Varsloe. They were attacked by a band of Gipsy robbers in Roumania and all but this man killed. His throat was cut, the larynx being laid open transversely and probably entirely severed, but the large arteries and veins were missed. The robbers discovered him trying to crawl away and hung him up by the neck till they thought he was dead, though respiration was probably possible through the incision. Then they cut him down and stabbed him in the abdomen and on the cheek and threw him among the other victims. After nearly forty-eight hours he was found by Professor Russ of Jassey, who took him to the hospital; afterwards he went to the Vienna hospital where he was under the care of Schrotter and Billroth. For six months he was unable to swallow, being nourished by enemata, and he remained in the hospital till recently.

During the process of healing, stenosis of the larynx occurred and he has been unable to secure enough air for continued respiration except throug the still open trachea. For some time he has been dilating the upper tract, and it is now of almost natural dimensions. A cone of metal is placed above the tracheal tube to which a string is fastened. He then introduces a probe, on the end of which is a concealed hook, through the mouth of the larynx, seizes the string and so draws the dilator upward through the stricture. If he remains in the city long enough I shall propose to close the opening by a plastic operation.

In the present condition both ends of the severed trachea are brought well forward. By means of the mirror you can easily see the bifurcation below and looking upward you can see the

under side of the vocal cords—something that most of us may never see again.

Please notice that the valvular form of the cords is readily determined by looking at them from beneath.

Deglutition is now easily performed, although I have no doubt but that the œsophagus was injured by the knife. When the external opening is closed by the hand he has some power of phonation. From Vienna he was sent to Dr. Mackenzie of London, who sent him to Dr. Lefferts of New York, who kindly sent him to me. Lodenski is on his way to join his family in San Francisco, which gives me this opportunity of presenting him to you.

During recess the case was examined by the members.

DR. BARRET.—I have here a specimen—a fibro cystic tumor which I removed. There is nothing especially interesting in the specimen or in the case, but I bring it for the purpose of exciting discussion on what I think is a very interesting subject in operations about the abdomen; and that is abdominal drainage. I have tried several methods of drainage in this case. I will refer to one other point: we knew the character of the tumor before we attempted to remove it. It is a case that I have had under my observation for a number of years. I have seen this tumor grow from a small size until it filled the abdomen, and I fought the operation for a long time. The woman was very anxious indeed to be operated upon. For the last two or three years I have refused to operate on it and dissuaded her from having the operation attempted; and when we came to examine it before the operation, Dr. Mudd kindly consented to examine it with me, and gave me the benefit of his opinion. The tumor seemed to be very firm, fixed in the pelvis, and it was a question whether the case was operable or not; the tumor was so firm, fixed and immovable. The only feature that seemed at all promising about the case was that the connection with the uterus did not seem to be very firm; the uterus could be moved very readily, but the tumor would not move.

To our great surprise when we cut into the abdomen the tumor was pulled up without difficulty, and we found that the adhesions were very slight, showing the great difficulty of forming any correct opinion in regard to the amount of adhesions before the abdomen is opened. I think the trite saying of

Emmet; that the first incision in operations for the removal of abdominal tumors is an exploratory incision, was peculiarly verified in this case, because the tumor seemed to be very firmly adherent while really the adhesions were very slight.

DR. POLLAK.—It was adherent to what?

DR. BARRET.—To the pelvis. I introduced a drainage tube arranged in a manner which I believe was the first used, at least I first heard of its use in this city, by Dr. Bernays. I do not know who was the originator. I should have stated that in this case there was a good deal of ascitic fluid—considerable bleeding that we could not check, so that it was eminently a case in which drainage should be resorted to. I introduced an ordinary tube, connected it with a piece of rubber tubing, and inserted the other end of the tube into a vessel of water placed beneath the bed, so that the tube effectually excluded the atmosphere from the wound and at the same time it exercised a syphonic action to draw the fluid out of the abdominal cavity. It operated very nicely, and drew the fluid out with considerable force, drawing out large clots of blood. It was easy to determine whether the tube was draining or not by placing the end of it in clear water and noticing whether there was any discoloration by the fluid from the abdominal cavity flowing into it.

I became convinced however, from my observation of this case that drainage tubes are only useful for a very short time after the operation. After this tube ceased to drain I secured a dentists saliva pump—such a pump as dentists use to keep the saliva out of the mouth while they are performing a dental operation; but after thirty-six hours all drainage ceased, and ceased because the lymph that was thrown out closed up the tube; and when we injected water into the tube we could only inject sufficient to fill the tube and it was immediately drawn ont again by the saliva pump. I am satisfied that the drainage tube acted only for a few hours; exactly how long I cannot say; that is a point on which the authorities seem to be very unsettled—this point of how long the drainage tube ought to be retained in position. I am satisfied, however, that they are useful for a short time only, because adhesions take place rapidly between the folds of the intestines, and between the intestines and the abdominal walls, and everywhere pockets are formed from which the fluid is never drained. Upon making a post-mortem in this case

the track of the tube was plainly visible, and it went down into the very depth of the posterior cul-de-sac into the very lowest depths of the abdominal cavity; yet there was a considerable number of pockets filled with inflammatory material, fluid lymph and pus. The tissue in the neighborhood of the tube was more inflamed than any other portion, and I am satisfied that the drainage tube did harm. Hereafter, if I ever have occasion to use a drainage tube it shall be for a few hours only. In the event of the formation of lymph, adhesions etc. on the peritoneal surfaces, I believe that the tube is a source of harm rather than good. This tube seemed to irritate the rectum and cause a constant desire to evacuate the bowels, and it interfered with the administration of nutritive enemata. As she was nauseated from the start, this was a serious complication. I would like to hear this subject discussed. That was my only object in bringing the specimen here to-night.

DR. POLLAK.—What you have said refers only to drainage of the abdominal cavity?

DR. BARRET.—To drainage of the abdominal cavity after an operation for the removal of tumors.

DR. POLLAK.—I know that the tube may be left in the thoracic cavity for several days and answer a good purpose.

DR. DICKINSON.—What was the age of the patient?

DR. BARRET.—Thirty-two, thirty-three or thirty-four years.

DR. HOLLAND. I would like to inquire what position this tube occupied? Was it inserted in the wound made in the abdomen?

DR. BARRET.—Yes; sir. It was inserted in the lower angle of the abdominal incision.

DR. HOLLAND.—Perpendicularly?

DR. BARRET.—Yes, sir.

DR. HOLLAND.—Would there have been any objection to moving the tube so as to have broken up any formation of lymph about the lower end of it, and to prevent its pressing on the rectum; by moving it it might be possible to disturb the lymph and prevent the stopping up of the tube.

DR. BARRET.—The object in putting the tube low in the

abdomen, is to have it reach the lowest point where the liquids are supposed to drain. The liquids gravitate towards the lowest point and that is the object in placing it low down. I think it would be injudicious to attempt to break up the adhesions by moving the tube, as that would create irritation and cause inflammation and bleeding; moreover, you could not move the tube around everywhere throughout the abdomen where the coils of intestines come together, so as to reach the pockets where the lymph is formed. They exist through the entire abdomen. It is equally impossible to wash out the abdomen. I remember a case that I saw with Dr. Hodgen in which he had operated and in which septicaemia was developed, and I assisted him, at least I was present, at the reopening of the wound. He reopened the wound for the purpose of trying to wash out the abdominal cavity, and try to get rid of the poisonous matter; and when the wound was opened the intestines were found to be agglutinated together so that it was impossible to wash out the cavity; the water would not go anywhere. I saw a short time ago a case in which Dr. Mudd operated, and in which he reopened the wound and tried to wash out the abdominal cavity to eradicate the cause of septicæmia. He opened the wound for some distance and passed the fingers in and found it occluded in every direction in which he tried to pass his finger. When we introduced the syringe and attempted to inject water, only a small syringeful could be injected, and it ran back again showing that the water would not diffuse itself through the abdominal cavity, the adhesions had diffused themselves through the cavity so that it was impossible to wash out the cavity. It is impossible to wash it out in a case of peritonitis except a very short time after the abdomen has been closed. If there wasn't much inflammation there wouldn't be much necessity for the tube.

I hoped that the presentation of this specimen would bring about some discussion and would give rise to some expression of opinion as to how long the tube ought to be left in—how long it is useful. We know that adhesions on peritoneal surfaces have been united in twenty-four hours after the operation—I am not sure that the lymph is not thrown out quicker than that. These are interesting points; and they are points that I hope will excite some discussion.

DR. A. GREEN.—I would like to ask whether the abdominal

cavity was washed out with antiseptic fluid or with simple water?

DR. BARRET.—It was not washed out at all in these cases in which we endeavored to do so. We attempted to wash it out with antiseptic fluids, but we could not diffuse the fluids through the abdominal cavity. The surfaces were agglutinated together —the intestinal folds were agglutinated to one another, and to the abdominal walls so that there was no room for the fluids to diffuse.

DR. A. GREEN.—Wasn't it possible to tear this lymph asunder?

DR. BARRET.—Not unless you had opened the entire abdominal cavity—the entire wound and tear it all apart.

DR. A. GREEN.—I think that inflammation of the peritoneal cavity is the result of sepsis, if we wash out the peritoneal cavity —just open it and tear out the adhesions it will not do any harm. We should wash out the cavity with antiseptic fluid and keep the room warm, because the peritoneum will not tolerate exposure to a low temperature, so we must keep the room warm and keep the wound washed out with carbolic acid water, and you will have no adhesions. That is the present state of science.

DR. JOHNSTON.—In regard to the rapidity of the exudations of plastic matter, I will mention a case that came under my observation in which a post-mortem was made. On Tuesday a boy was taken with a chill, followed by a severe congestion of the lung without any cough, and the post-mortem examination revealed the fact that the middle lobe of the right lung and the middle lobe corresponding in the left lung, were highly inflamed, infiltration closing up the air cells. The pleura on each side was adherent to the ribs so firmly that you could not tear it loose with the fingers, and it had to be cut away. This boy was eighteen years of age, he was taken on Tuesday and died on Thursday, these adhesions took place in so short a time as that.

DR. HOLLAND.—The object in using a drainage tube, of course, is to take away the matter from the abdominal cavity. It is not supposed to lead off the lymph that is formed; it is supposed to lead off such blood, and serum as have accumulated in some particular spot—the lowest spot of course—during the operation, or a short time after the operation. The question of how long the tube is to stay there I think cannot be determined, unless we know how much material is there. As long as the tube will

drain off any fluid it seems to me it should remain. With regard to moving it I can see the propriety of it, for the doctor said it seemed to be occluded by organized lymph, filling up the opening in the tube, and that drainage was prevented in that way; now by a slight moving of the end of the tube this might be prevented. As far as the pressure upon the rectum is concerned, it seems to me that that could also be prevented by simply elevating the tube or changing the position of it a little. I remember having a very extensive scalp wound—I suppose the wound must have been eight inches in length. I stitched the wound, and had a great deal of difficulty in stopping the hemorrhage during the operation. I inserted a cotton wick clear through the the wound before I stitched it up, and I contined to pull that through a little further and a little further as the wound healed and thus drained off all the blood from under the scalp and the result was that I had healing by first intention in the wound.

The only place that was unhealed after twenty-four or thirty-six hours was where the wick was not withdrawn. It healed as kindly as could be; so that I believe in changing the position of the tube breaking up inflammation and formation of lymph.

DR. JOHNSTON.—I have been lead to believe that the term first intention meant to bring the parts of the wound directly together and that the liquor sanguinis or lymph being thrown out would unite them. That was the meaning I was taught to understand when we spoke of healing by first intention; but my young friend here to-night says that he took a candle wick and sewed it under the muscles of the scalp and then that he had healing by first intention. Surely that would be an anomaly in surgery.

DR. HOLLAND.—My venerable friend of the right has taken only a part of the text. If he had noticed, he would have heard me say that I put a candle wick or something similar to a candle wick through the wound crosswise and that the only points that did not heal by first intention were where the wick was.

DR. JOHNSTON.—Then as regards Dr. Barret's case, the doctor says that Dr. Barret put the drainage tube in to drain out something that was left there. I take it for granted that Dr. Barret knows enough about this operation on the abdomen to take a sponge and take out all that he possibly can; but in an operation of this kind there are small blood vessles cut, torn surfaces etc. and an exudation follows and forms lymph, and the disintegra-

tion of the blood corpuscles follows; these seek the lowestpoint in the abdomen and we put a drainage tube in to draw them off.

DR. HOLLAND.—In regard to that point I would like to ask Dr. Barret for what purpose he inserted the drainage tube. Was it to drain away broken down tissue, the result of inflammation that occurs three or four days after the operation, or was it to drain off that which may have been left at the conclusion of the operation?

DR. BARRET.—There was nothing left in the abdomen. Of course we cleaned it out as thoroughly as we could with a sponge. When we closed it up it was clean. A good many vessels are torn which are too small to be tied, yet sufficiently large to ooze blood. It is desirable to keep the abdomen clean—to keep the fluids drained off, and that is why the drainage tube is inserted; to drain off the fluids that accumulated after the operation was performed. And if a drainage tube would continue to drain so long as this fluid accumulates it would answer all the ends for which it is required; but it will not do that and it is useless to leave it there more than a few hours after the operation. It will only drain for a few hours, and after that time it ceases to drain simply because the lymph clogs the tube and prevents any further drainage.

DR. HURT.—There are two causes for inserting the drainage tube, the first is to draw off the fluid matters that may accumulate immediately after the operation has been performed, and in the second place, to drain off pus that may arise from the inflammatory process. The last would be at a remoter date—three or four days. I think it advisable in a great many cases, and I think advantages are to be derived from retaining the drainage tube as long as three or four days in a wound in the abdominal cavity.

DR. BARRET.—I don't believe the drainage tube ever drains for three or four days.

DR. HURT.—In Dr. Barret's case it certainly did not drain. There was nothing there to drain.

DR. BARRET.—There was plenty there to drain. In Dr. Hodgen's case and Dr. Mudd's case the adhesions prevented drainage.

DR. HURT.—You could keep these adhesions from forming by continuing to inject water and disinfecting fluids frequently;

but whether you would do good or harm by it is impossible for me to say.

SATURDAY, Jan. 20th, 1883.

DR. LOVE.—Some weeks ago I inquired of a gentleman for some safe and efficient and sure relief for tape worm. As the patient was a child only fourteen months old and very much debilitated, as the worm had been living off it for some months, I did not dare to use any of the unpleasant, disagreeable remedies such as we ordinarily use, which are bitter and nauseating. Pelletierine was recommended to me. This is the active principle of the pomegranate. It is a French preparation. I immediately secured a bottle of it. It comes in ounce bottles—being put up in that form. It is a very pretty, pleasant looking preparation. The directions for an adult are: to take the whole bottle stirred up in a glass of sweetened water. I took one sixth of this quantity, that is, one sixth of an ounce—a little over a drachm, for the baby, stirred it up in about one-sixth of a tumblerful of water sweetened, and it was so pleasant that the baby drank it entirely. I had previously had the child dieted. The night before, I had the bowels moved and cleaned out, so that in the morning, it having taken nothing, the mothers milk was given it. In the morning I gave it a cathartic, compound tincture of jalop, in a little sweetened water. This was retained. In about three hours I called again. I told the mother that when I called I hoped she would be able to show me the worm. The child had not been made sick at all. At the appointed time I called; when the mother heard the bell ring she went to the child and removed the napkin to see if there was any sign of the worm. Up to that time there had been no sign. As soon as she removed the napkin there was a straining movement, and the worm began to appear; and as I went into the room she drew it out as we would a piece of tape. The child strained and it was all passed except the head, which was of course very small, then the child ceased straining. I then tried every way to get the child to give us its assistance, but it did not. The worm evidently had not been passed out promptly enough after giving the medicine, and for that reason it was beginning to recover from the intoxication and began to crawl backwards from whence it came. I felt it

was impossible to remove it unless I could secure a straining movment. I feared the head would be broken off, so I gave the child an enema of a solution of sulphate of soda and warm water, after giving about half a teacupful of the solution, the straining movements were again secured, and the entire worm was passed up to the head; about the head I was in doubt. I couldn't find it but I thought that possibly the instrument might have wounded and broken it. I hunted for it in the debris that was passed but could not find it. Of course it would be so small that I could scarcely find it. There have been no signs of any symptoms of tape worm. I do not know whether sufficient time has elapsed, but the child is thriving and doing splendidly, picking up rapidly. The use of this medicine in this case was somewhat experimental. I did not know how well the child would bear the medicine. I would give a larger quantity next time. I think the action of the remedy is to produce intoxication of the worm and then the cathartic brings it away while the worm is dead drunk. If the cathartic acts to slowly the worm has time to recover before it is expelled. I know that was the fact in this case, because the worm was active in trying to keep from coming out. It was only by our assistance in prodecing a gentle traction on the worm that it was removed as it was. I am very much pleased with the remedy in my first experiment with it. It was so pleasent in its effect and its administration that it strikes me it is the best remedy that we have. I will state that the worm was about eighteen feet long, and I guess about three quarters of an inch broad. This was the first effort that I had made to remove it.

DR. BARRET.—I would suggest to Dr. Love that in such cases, in giving an injection instead of giving sulphate of soda, it would be better to give an injection of vermifuge. It has always been my habit after giving the dose of medicine to remove the tape worm to direct the patient as soon as it began to make its appearance—as soon as the bowels began to move—to use a decoction of the remedy used for the expulsion of the worm. I have directed the patient to take a large injection of kosso which I have been in the habit of using. The upper portion of the worm near the neck is very delicate and almost always breaks. After a worm is removed it will often be very active and will take hold of your hand. It is desirable to have the lower bowel filled with

fluid so that the worm will be washed out, and then the fluid acts deleteriously to the worm. I have found this plan very efficious, and I much more frequently get the head by using this injection.

DR. LOVE.—I think the suggestion very excellent. I believe the use of enema has a good effect.

DR. PORTER. The case I want to report is one of those unfortunate, but very interesting cases—at least it was very interesting to me, and happened in my experience last monday—the day you will remember that we had a very severe fall of snow; possibly that had something to do with the event. Quite early in the morning I was called in consultation with a west end physician, to see a case of so-called membranous croup, one of those cases which we are taught, by many, to be diphtheritic. The patient was a little girl seven years old, and seemed at that time to be beyond hope; there seemed to be but little hope of saving her, or even greatly prolonging life. The operation of tracheotomy was suggested at the time, but was laid over until the afternoon. I saw her the first time quite early in the morning, about four o'clock. She was breathing fairly well, somewhat laboriously. There was no abdominal respiration, and no sinking in of the abdomen, but the air was passing through a somewhat narrowed larynx. There was then no spasmodic action. In the afternoon I again saw her with these physicians, and upon examining the case very carefully with a view to operation, I found what I might have known earlier in the morning; though it would not have changed the later opinion at all, that the bronchial tubes were very much involved, and that there was a great deal of pulmonary infiltration; in fact at the base of the lung there was very little vesicular murmur. The child's breathing was hurried. In the apices and all down the bronchial tubes the air current was impeded. The question of tracheotomy had not been decided on. Before going further with the case I might say that I believe that a careful examination of the thoracic cavity ought always to precede the operation of tracheotomy. The advisability of the operation was considered at the later consultation, and I gave my opinion against the efficacy of the operation, but the child would certainly die without the operation, and this afforded a meager chance. I told the parents as I did the attending physician that there seemed to be little if any

hope, but that the operation would not diminish the child's chance of life, because without it there was none. Fortunately in deciding this case the parents interfered and said "if the child cannot live without the operation; do it," and the operation was done. I found little trouble in inserting the tube; there was little hemorrhage. Artificial respiration was resorted to ,not because there was any more breathing through the tube, but because I hoped by forcibly contracting the chest to force out some of the mucous in it. I did that which I believe no physician is justified in doing, and yet those of you who have done the operation and saved the life of the patient know how one feels at the time; I applied my lips to the tube and tried to withdraw the accumulation from within the trachea, and succeeded to some extent. I say this is not justifiable. I do'nt believe we are justified in putting our lives in danger. It is only within the last two years that two of my class-mates have died from the effect of doing this. I do not believe we should do this thing. I did at any ratè get out some of the mucous from the trachea, and with compression of the chest we got out a good deal more. The child was practically dead before the operation was completed, and in all probability death was not hastened a moment by it. Of course I cannot say positively whether the operation would have been justifiable earlier in the morning. When the matter was first considered there was not a great ammount of lung trouble, but certainly it would have followed the operation, and then the suggestion would have been made by us, if not by the friends of the child; that the patients life was cut short by the operation.

We often hear it said that we should not do these operations too late. do not wait too long; yet I think this was an instance in which the longer we waited the better the result, and the earlier the operation was done, the more directly would the operation have stood as the relative cause of the child's death in the estimation of the friends, and of some physicians. I do not believe that any operation at any time would have saved the child's life.

DR. GREEN.—Does Dr. Porter take the position that we should wait in a case of membranous croup to perform tracheotomy until we see that everything is lost? Is that the position that Dr. Porter takes?

DR. PORTER.—I will ask the doctor to answer that for himself. I think any sensible man can answer that.

DR. GREEN.—I think there are many things that resemble membranous croup that are not membranous croup; but as soon as we are convinced that we have a case of membranous croup, the sooner we operate the better it is. The affection in the lungs is merely a secondary thing. The child is trying to get air; extending the chest, and by this very expansion of the chest the air that remains in the cavity of the lungs, in the alveola of the lungs is of course rarified, the capillaries and alveola become distended. That is one thing, and besides this the actual pressure of the air in the alveolar operates upon the capillaries and keeps them down, but this pressure is diminished and of course the capillaries are fully distended, and exudation takes place; infiltration and exudation in the alveolar tissue, and the longer we wait in such cases the less we have to expect, to accomplish by the operation. Membranous croup is a fatal disease, and when we discover that we have a case of membranous croup the sooner we operate the better and more we can expect success: I object to calling membranous croup diphtheria, and I do not agree with those authorities who say that membranous croup is of a diphtheritic nature. The epithelium in a case of membranous croup is soon regenerated, and the false membrane is expelled; but that of diphtheria lasts several days.

DR. MULHALL.—I agree with the latter practice, which is not to wait until symptoms of suffocation ensuse before doing the operation. I think as soon as we are positive from the symptoms that the larynx is becoming obstructed it is time for the operation to be done, and we should not wait to operate as a last resort. Prof. Jacobi in New York has shown the advantage of performing tracheotomy early in children. He did not wait for the consent of the mother, but took the children to the hospital, and operated early in the disease.

DR. PORTER.—With reference to the suggestion made by Dr. Green I would say; I would not operate in every case of membranous croup. I don't know that an operation is needed. I have seen, and I suppose every member of this society has seen cases in which there was no great laryngeal obstruction; cases in which the membrane was shed and the patient got well. I have seen more cases of membranous croup get well without,

than with operation. It is only in the more severe cases that it is necessary to operate. With reference to this case that I operated on: the reason we did not operate earlier was because the laryngeal obstruction was not great; that is, not too great to sustain life; and when it was done the lungs were infiltrated to such an extent that there was catarrhal anæmia of the lungs, probably upon the hypothesis that Dr. Green suggested; though not likely, because the obstruction was not so great as to produce rarification of the air. There was true catarrhal anæmia; that was the death warning to the child: the laryngeal obstruction. I reported this case as a case in which operation seemingly necessary was not necessary; but it gratified the parents and certainly settled a doubt that had arisen in our minds whether the child might live or die. With reference to the statistics that have been published with reference to doing tracheotomy early, they show that we should not wait too long, and yet the very fact that tracheotomy is done early, and a larger proportion recover than used to, does not show that all the cases would have died, if the operation was left until later, before it was done. It necessarily follows that when the operation is done early they do not reach the crisis; but they may never reach it. If you do the operation in one hundred cases and there is only obstruction in twenty-five per cent. of them, you do not know that the operation was necessary in fifty per cent. of the cases.

DR. GREEN.—If there is nothing before the society I would like to say a few words on catarrhal anæmia. Was the catarrhal anæmia a primary affection or was it secondary? Did the doctor see that there was a false membrane? I was called night before last to see a boy six or seven years of age, in fact I have seen a great many cases of actual membranous croup, and when I saw this case I came to the conclusion that this was not membranous croup, although it had all the symptoms of membranous croup. I applied my remedies and the next morning the child was all right. A great many cases of membranous croup of this kind get well. Did you see the membrane, that is the question?

DR. MULHALL.—If there is nothing more to be said on this subject I would like to introduce the subject of last meeting—the case that Dr. Porter reported. I understood Dr. Porter to say that he would close that opening—the tracheal opening by a plastic operation.

DR. PORTER.—I stated that if the patient remained here long enough I would like to make an attempt. It was only a suggestion. I did not examine him carefully with regard to the practicability of such an operation. The man would object to any such operation as it is his trade mark, so to speak, in getting through the country. I don't know whether it could be done.

DR. MULHALL.—I am of the opinion that it could not be done, I am further of the opinion that it never can be done, trade mark or no trade mark. I had the pleasure of examining the man's larynx at the house of Dr. Pollak, by his invitation, and it was very interesting indeed. This man has been under treatment in Vienna, and by the way, I may mention that I saw the man treated there myself, for an occluded larynx, the treatment consisting in establishing a way with the galvano cautery, and then dilating this way with the tubular bougie and subsequently with the pewter bougie of Schrötter. This treatment consumed five years, and still neither Schrötter nor Billroth closed the tracheal opening. He left Vienna for his future residence, San Francisco, certainly not to consult any physician in this country; and has been paying his way, through the kindness of of physicians to whom he has exhibited himself, and the Schrötter method of dilatation, of which he himself is now perfect master. He has been without regular treatment for only two months and yet after that short time the right half of the larynx, the right vocal cord is immovable—fixed in the median line, and the left vocal cord with the most powerful inspiratory effort hardly moved from the median linemore than one sixteenth of an inch, so that at present he himself stated that he did not think it possible that he could live without the canula more than forty-eight hours.

Before the operation could be done and the opening closed the treatment would have to be instituted again, and it would take months to dilate the larynx to its natural size; it would be necessary to pursue this course of treatment with the pewter bougies again, then the tracheal wound might be closed but even then he would certainly have to use the gutta percha tubular bougies of Schrötter, since after a cessation of the treatment for only two months the larynx is almost completely closed up again and he would have to keep dilating it during the rest of his life. The case is a success with regard to the œsophageal

dilatation, but with regard to the larynx, it is only a success in so far as restoration of the voice goes, which is fairly good, but certainly I am sure he will never be able to have the tracheal wound closed permanently unless he keeps up the dilitation by means of tubercular bougies the rest of his life. He is not at all satisfied with his condition, and I am not sure that if the man were not to get along in life but he would make a more successful operation than the gypsies did, I am of the opinion that no method of existing laryngeal dilatation can be successful, where the stricture is the result of a scarring, the result of extensive wounds inflicted through a healthy larynx with a knife.

SATURDAY, Jan. 27, 1883.

Specimens of Bone Surgery. By F. J. Lutz, M. D.

DR. LUTZ.—I have a few specimens here that illustrate certain points in bone surgery that have been interesting to me, and no doubt the pathological specimens will be interesting to the members present. The first specimen I wish to call attention to is one which I took from a gentleman 77 years of age, who, on the 20th. of last March was run against by a young man and knocked down and was unable to rise. He was carried into my office, and I there made an examination of his right hip of which he complained. I found the toes everted with much crepitus at the hip joint and an increased amount of rotary motion at the head of the bone; no tumefaction having set in, it could be very distinctly made out that there was a fracture. Besides this it could be very distinctly made out that the fracture was comminuted in its nature. The different pieces could be very readily felt, as the adipose tissue was very sparse. I had him transferred to the hospital and treated him for an extra-capsular fracture of the hip joint. The treatment consisted in using a long splint and I added to this extension. Although he was 77 years of age he was a very active man for his age and was in the habit of walking out each day, and under the continued confinement his general health soon began to fail, and really before anything of the kind was suspected an immense bed sore made its appearance. However, under the use of tonics it seemed as though union was taking place in the fractured bones, and if you will examine the specimen when I pass it around, you will find evidence of

efforts to deposit bone. Now there is an entirely loose fragment here which represents the smaller trochanter, which is united to the bone by the osseous deposit. The union which I supposed was going on between the neck of the femur and the shaft, however did not take place. The nature of the fracture is such as to make it impacted. The great trochanter was driven towards the neck of the femur, and thus the sharp end of it was impacted in the cancellous tissue. Unfortunately or fortunately, as the case may be, the man died on the 28th of June, and I was so fortunate as to secure the specimen, which is very rare, a very interesting one at any rate. It is a comminuted, extra-capsular fracture.

Now, the next specimen that I wish to show, is one the like of which I have never before seen. This I took from a young man whose thigh I amputated in the lower third on the 14th. of this month. He first came under my care on the 31st of May. He is 24 years of age. This is his history, he is an intelligent young man—a schoolteacher—had suffered from knee joint disease ever since he was a boy 5 years old. The condition that he presented was this. The left leg was about four inches shorter than the right; the head of the tibia was dislocated backward into the popliteal space, making the femur quite prominent, then near the head of the tibia were a number of sinuses, which led down to the roughened bone. There was no apparent disease of the articular surfaces of the femur. The man came really with the idea of having the leg amputated. He had been under the treatment of various physicians, some of whom had removed necrosed bone from the head of the tibia. He came with the idea of having the leg amuptated; but taking everything into consideration I thought it a good case to attempt a resection of the knee joint. I reasoned in this case, that by making a V-shaped incision beginning on one side of the femur, and coming around to the other, and taking out what diseased bone I could find in the head of the tibia, and then sawing off a portion of the articular surface of the femur, that I could get the two surfaces to unite, and possibly give to the man a useful limb. As the result of the explanation which I made to him, he consented to have this operation done, which I did on the 18th of June of last year.

When I opened the knee joint, I found that the head of the tibia was excavated — entirely destroyed almost, and that the articular surface of the femur was not destroyed. The ligaments, laterally and anteriorly were, of course, very much elongated,

and the softened condition of the head of the tibia allowed the ham-string muscle to pull the leg in a backward direction into the politeal space—it was really dislocated backward, practically speaking. The lower surface of the patella, also, the inferior surface of the patella was necrosed, and I removed it, after having sawed the bone in such directions as to most nicely bring the ends into apposition. I united the femur to the tibia by means of annealed wire, then put on the long splint—a splint covering the leg from the hip joint to the heel. The patient rallied very nicely after the operation, and the reparative process seemed to go on very well, so much so, that in about 2 months firm union seemed to have been established between the tibia and femur. About this time after removing the wires, which came away quite readily, sinuses began to form, and there was evidently some deep seated cause of irritation, some inflammation was going on in the bone, which kept up a constant discharge at the ends of the V-shaped incision. I inserted a drainage tube and there was a large discharge of pus with almost a cellulitis of the upper part of the calf of the leg, and the lower portion of the thigh. This kept discharging. The bony union seemed firm, yet the inflammatory action and suppuration of the soft parts was constantly kept up. Of course I opened these sinuses and inserted drainage tubes in every direction, and the patient's improved condition, made me hope this suppuration would finally cease, but on removing or making an attempt to permanently remove the splint, I found that the union had taken place between the femur and tibia at the knee, at rather an angle, making the knee bulge, as you will see when I pass it around. Of coure this patient was kept in bed at the hospital so long that latterly he suffered from fever, became cachectic, and I then advised him, in order to save his life, to have his leg amputated. I reasoned in this way, this man had been confined to his bed from the 31st of May until the 14th. of January, with a prospect of being confined there another 8 months, and I amputated his thigh in the lower-third on the 14th of this month. This is the specimen as clean as I could get it since without destruction. I have performed the circular operation, not expecting, however, to get union by first intention, on account of the infiltrated condition of the skin and subcutaneous areolar tissue; and I did not succeed in getting union by first intention except in a very small portion of the wound. I performed the circular operation because I know

it would give him the best stump. He is doing exceedingly well since the operation, in the parts of the wound which have not united by first intention—which is the larger portion of it—the granulations are looking very healthy and on the third day after the operation the man was able to sit up on the edge of the bed, and put the stump over the edge of the bed to have it dressed for the first time. Now if you will examine this specimen you will see that there are a number of places where the femur has united with the tibia at an angle, that is only on the anterior surface. In the head of the tibia itself there is a suppurating cavity, and in this cavity caries has been going on no doubt, and the pus that was formed in this caries of the bone burrowed its way between the muscular tissues of the leg and thigh, and caused the sinuses. The head of the fibula was neither involved in the disease nor in the operation, the femur, tibia and patella only were necrosed. Of the man's history I can say this, he has never had syphilis, there is no history of scrofula or phthisis in his family, his father and mother both attained a ripe old age. He has a number of brothers and sisters who are all well. Now the critical question comes up. How much of the failure attendant upon this resection is due to the fact that I didn't succeed in properly approximating the cut surfaces of the femur and tibia? well, I don't know but what it might have been done better. I tried and thought I succeeded, with the assistance of a gentleman of greater experience in these cases than myself, in approximating the two surfaces admirably; but the result proves, or as the specimen shows, this did not continue to be the case. It may be that originally the two surfaces were nicely in position and some of the inflamed bone in the tibia had not been entirely removed, and the suppurative process, the necrosis, or caries, or ostitis of the part continued and thereby pushed the softened bone forward and the upper fragment of the femur was pushed forward and in that way the deformity was produced.

DR. DUDLEY.—I would like to ask the doctor if there is any history of injury of the part formerly.

DR. LUTZ.—No, sir.

DR. BORCK.—Those specimens are certainly very interesting, they ought to be interesting to every one. They teach us a great deal. I will say in connection with the first case, the last one I have not seen, that I was at Jacksonville last week, and called

on Dr. David Prince, well known to most of you, and he showed me a specimen taken from a man who had had a fall and received an impacted fracture—extracapsular fracture, and the man walked several miles to his home after the receipt of the injury, and then the physician who was sent for, on manipulating the limb, found that there was a fracture. Dr. Prince was called in and put the limb in a Hodgen splint. I understood Dr. Lutz to say that he used the long splint. In connection with this case, in regard to the treatment I would say this, that whether we treat them with the long splint or with any splint at all, in old persons we do not expect a union, in those cases we should treat the case like an intra-capsular fracture.

DR. LUTZ.—There was an attempt at union in my case, as you will see if you examine the specimen.

DR. BORCK.—There is no firm union between one broken fragment and the shaft of the femur.

DR. LUTZ.—There is an attempt at union.

DR. BORCK.—It makes no difference, not a particle, even if we take it for granted that you did expect the union, that would not make any difference in the treatment. The patient was kept on his back with the long splint on his leg; he was an old gentleman and by being kept so long in bed, his constitution broke down, bed sores came and the patient died. He might have died anyway. There was probably no fault in the treatment at all. But why not let the patient walk about? Why not put on a plaster of paris bandage like we do in intracapsular fractures and let the patient walk about? I have done it several times. When a man has intracapsular fracture we cannot always make a correct diagnosis. I keep the man in one day and then put on the plaster of paris bandage, give the man a pair of crutches and allow him to walk about. Why could not this man have been treated in that manner and then be allowed to walk about? If he had been he would not have had bed sores and might have lived. I should certainly not treat these cases with the long splint.

DR. LUTZ.—I want to say that the Doctor's discussion of the treatment of this case is based on a hypothetical case of another kind. I can readily understand that in cases of impacted fracture of the hip-joint where the patient can walk about, we do not put

them in bed at all; but when a man cannot stand on the foot or make the least motion without excruciating pain, it is a first prinicple in surgery, that what is most indicated is to keep the man quiet. You wont succeed by putting on a plaster of paris splint and telling him to walk about, giving him a pair of crutches. Then again, the supposition is that there is a possibility of union. There is such a thing as not having a union after a certain age, we all understand that; yet there is a kind of union that may be expected in fracture of the neck of the femur and which will answer every purpose of union that can be expected in middle life. Now, in this case we have an illustration that completely refutes anything that Dr. Borck has stated about the impossibility of union. We have here a firm osseous union of this comminuted portion of the smaller trochanter of the shaft of the femur, as the Doctor can convince himself. There is a very firm union. As to the kind of splint used in any given case, I have no doubt Dr. Borck's splint is a very valuable one; it is the same as Dr. Hodgen's, which, according to my experience, is perhaps the best that can be used in the majority of cases. I think that we have less shortening with it; they give the patient more comfort and better subserve the purposes for which we use the splint than any other I have tried. Then there are certain conditions in the patient himself or herself that govern in the selection of a splint. Now, this was a fidgety, nervous old man who would allow no kind of splint to remain on very long. And we could not keep him in anything like a fixed position and I removed the splint after a time and used only sand bags. I made them, one, two or three outer ones reaching from the external malleolus up into the axillary space. When we have an impacted fracture where the impaction is so firm that practically there is no fracture at all, in such case, the leg can be put in a plaster of paris bandage and the patient allowed to go about. Certainly that is the best method in these cases.

DR. MUDD.—I would like to ask Dr. Borck how he applied his plaster of paris; whether it was on the upper or lower limb?

DR. BORCK.—Both upper and lower limb. I began to bandage above and let it run down to the foot and then bandage up again.

DR. MUDD.—Around the body?

DR. BORCK.—Certainly.

DR. MUDD.—It seems to me, Mr. President, that the gentleman has not sufficiently distinguished between the characters of fractures that we have at this site. Now, in fractures through the trochanters, such as is exhibited here, union is very generally accomplished, no matter what is the age of the patient—it is almost certain to be accomplished whether the patient is old or young, or an opportunity is given for it. The union will almost certainly occur if the nutrition remains at all good. As the Doctor says, the patient was seventy-seven years of age and was confined to his bed with a long Liston splint—a splint that removed from the patient almost all possibility of protecting himself from such a sore; a splint that will make such sores even in persons in good condition of middle age, persons in whom nutrition is well preserved and is almost certain to produce it in aged persons. As the Doctor says, he removed this splint after a time and applied sand bags, which gave the patient more liberty. In the application of a plaster of paris splint in such a fracture as this, I hardly think the Doctor would be able to secure much support to the part. Such a fracture as this does not need much lateral support. If it needs any support it is in the support of extension and the plaster of paris splint would fail to give him any extension. The only advantage to be gained from the use of the plaster of paris splint, would be in the weight it would give to the limb and the motion of the patient if he could move about on crutches. In the recumbent position, in bed or in the chair, it would be a disadvantage to the man rather than help; it would be an encumbrance to him in moving himself in bed or in the chair. I think the Doctor was right in using the splint that he did in this case. Now, as to the use of splints, I think there is no splint that gives the liberty of motion that the Hodgen splint does, except Smith's splint, which acts the same way as the Hodgen splint; these give the patient some motion of the hips, give him sufficient liberty to protect himself from bed sores and besides this it gives that extension to the limb, which is needed in order to get union of the parts. Now, the question comes up here, which is very pertinent: as to what should be done in old persons who are subject to fractures of the neck, in which we can hardly expect a union because the nutrition of the part has already undergone changes and atrophy with age and imperfect nutrition of the head of the bone from complete detachment, or loose connection of the fragment. It is a

rare event to have union in a very old man, with a distinct intracapsular fracture. I have seen them where they have existed for years and years, very clearly eburnated simply, or hardly a change in the border except to smooth the roughened edge of the fracture. What are we to do with such a patient? Are we to confine him? I answer yes and I think we have good reasons for it. The Doctor says that any motion or manipulation of the parts in this patient was very painful; that is sufficient reason for keeping him in bed, putting him in bed and keeping him there, how long? Not long enough to get union. That will fail in six months, perhaps longer; but long enough to allow the parts to become accustomed to the condition; long enough to diminish the irritability; long enough to enable the patient to move about without discomfort. One of the important points is to keep the part from irritation and muscular contraction; that is an important element in the treatment of these fractures. Then there is another element, which I think a very important one. In these intracapsular fractures, whether they occur in middle-aged persons or those in advanced life, where we frequently fail to obtain a union, we do obtain a deposit of bone upon the head of the trochanter and deposits of bone on the sides for the support and protection of the shaft of the femur. It is important that these should be put in the proper place; if the man moves and there is no extension, he will almost certainly produce contraction of the muscles and the stimulation and irritation will almost certainly raise the trochanter and the portion of the neck attached to it, and raise it beyond the acetabulum, raise the ilium and the shortening will be very material; we will have the shortening anyway, but if we keep up the extension in the proper position, we will obtain some deposit at the proper site and the limb will be better, more useful than without such union. Then again, without such treatment it is a matter of impossibility, although you expect no union, to keep the parts in proper position and give them a certain amount of rest. It is a very interesting specimen, the history is a good one and the lessons to be learned from it are important ones.

The second specimen exhibited by the Doctor, is equally interesting. It shows the lower of the osteoplastic deposit in the cancella or end of the bone. It is another proof also of the very common experience of surgeons, that in operations for caries, when we have a chronic process in the ends of bones it is a very

difficult matter to remove all the diseased part. In children these most frequently occur in the short bones—in the tarsus. In removing the diseased part, we take out all we can get away and we may explore very thoroughly and yet there may be a little point not larger than a lead pencil that may lead into the deeper part and the patient will fail to get well, the chronic process continues and it is only after the second operation that the patient gets well.

The specimen shows very plainly that the second deduction made by Dr. Lutz was the proper one; that the result occurred, not because he failed to get the bones into proper condition, but from the fact that a portion of the diseased bone still remained and that this portion produced this ulceration, the carious process. This is evident. There are two cavities in the head of the femur. The shaft of the bone was probably not involved, it doesn't enter the medullary cavity. If the Doctor had removed an inch more of the head of the tibia, he would probably have succeeded in the operation. It is a difficult matter, however, to tell just how much to remove. I don't know that anyone would have done better than the Doctor did; possibly not, because we cannot always tell how much of the bone is involved. I remember a case that Dr. Gregory operated upon at the Sisters Hospital, where the trouble was in the knee-joint, in which a section of the tibia was made and it was found that there was one point that showed fatty degeneration, exhibited granulation tissue instead of bony tissue. The Doctor followed it up into the shaft of the femur above the necrosed spicula of bone and removed a good sized piece, but he had to make three or four different sections of the femur before he removed a sufficient quantity; after he had removed from two to two and a half inches of the bone, the patient made a good recovery. It is an important point to get enough of the bone away and it is an important point not to get too much, so that it is very natural that we should err in different cases at different times.

DR. BORCK.—I want to say that I did not criticise the gentleman's treatment in this case at all. If it was supposed that I did, I was misunderstood. I think the case was very well treated. I make no criticism of the treatment, I merely asked the question, whether in such cases like this of extracapsular fracture,

we could not treat them in the same manner as we treat intra-capsular fractures?

DR. LUTZ.—I wish to ask Dr. Mudd a question. He mentioned in connection with some remarks about caries of the bones, caries of the tarsus. I have an old man on whom I operated about three weeks ago. About two months before that I removed the first joint of the tarsus, the only one that was affected with the disease at that time; I disarticulated it above and below and union took place very nicely, but had hardly taken place between the sound portions when the caries began in the second joint and it subsequently attacked the bone higher up. Of course I concluded to perform Syme's operation, but the question that I wish to ask is this: how does it come that this carious process is started up in one bone after another? What is the source of the communication between the various bones if any, or must we suppose that it is a local expression of a general condition?

DR. DUDLEY.—I would like to ask Dr. Lutz if he has any theory with regard to the specimen he has exhibited?

DR. LUTZ.—No, sir; I have not.

DR. MUDD.—Before I answer the Doctor's question I would like to make another remark about plaster of paris splints. The Doctor speaks of it in connection with fractures of the shaft of the femur in such fractures as we have here, where there is nothing to immobilize the part except the flexible body which moves with the limb. There are surgeons who still treat fractures of the shaft with plaster of paris splints, and they obtain good results, as good perhaps, as some surgeons get by means of the extension splint. The extension splint, either Smith's splint or Hodgen's suspension splint, gives I think, the best results; this is my favorite method of treating these fractures; it is the method by which the patient gets the best result. But there are still cases in which there are admirable results obtained by the use of the plaster of paris splint. There are good results by this as there are by any other methods.

With regard to the Doctor's question, I don't know that I can answer certainly how it is. It is a well known fact that we have this carious process in the end of bone and about joints; excited in different ways, they begin by different processes; in one case there is a rupture or strain of the ligament; from this

we have an extension to the bone, or it may begin in the bone and from the bone of the tarsus extend to the ligaments—we have an abundance of ligaments in this neighborhood, uniting one articulating surface with another and these ligaments are almost always involved in the carious process—the ligaments are involved and we have softening of the ligamentous tissue and uniting bands, and while in this softened condition we have a continued inflammation extending from the joint through the synovial capsule and where we have these macerated articular surfaces the bones, when they are contiguous, are liable to be affected by the inflammation extending itself along the ligaments and along the soft tissues, the periosteum becoming thickened and vascular and finally the bone itself becoming involved. I think this is probably the explanation. Now, as to the explanation that this is the expression of a constitutional vice; what evidence of constitutional vice have we? Such an inflammation may attack the healthiest children; this disease comes where there is health and vigor and not where there is old age and debility. Why should we look for a constitutional expression? It brings conititutional disturbance if it persists for a long time, but in many of these cases of joint trouble we find no constitutional trouble at all.

SATURDAY, Feb. 3d, 1883.

DR. HUGHES.—I have a communication which might interest the society on the subject of syphilitic insanity, spyhilitic melancholia—syphilitc hypochondriasis. We have seen the consciousness of having become the victim of a loathsome and dread disease so operate upon the mind of an unsophisticated and naturally virtuous young man as to precipitate an attaek of insanity, solely through the potent power of mental impressions, before the virus of the chancre has had time to diffuse itself through the circulation, and specifically contaminate the brain. This psychical sequence of the young man's first debauch usually assumes the form of melancholia, and has an hereditary neuropathic diathesis as a potent predisposing factor. There is another and somewhat simpler form of syphilitic psychosis which displays itself in hypochondriasis according to McLean Hamilton, in a form of melancholia according to Dows; as a remoter sequella of the venereal poison either acquired or entailed. The following is a

somewhat graver case than many of its class that have come under our observation, and the patient made a good recovery, and he is now, (Febuary, 1883.) engaged in his ordinary mercantile pursuit. He has consulted us frequently since as regards his costiveness and chills, which have enabled us to maintain in conjunction with the other medication the specific prophylactic impressions.

Mr. S. J. L. (these are fictitious initials) came under treatment December 8th, 1879, complaining of fever, sleeplessness, constipation and other ills which were due to his own morbid impressions. He complained of various morbid feelings too numerous and too unreal to need mention here. The fever, insomnia, hepatic and intestinal torpidity were real enough, and required medical aid as well as the syphilitic taint of which he complained. He had taken a strong antipathy to an excellent medical gentleman who had previously treated him, and believed his physician had poisoned him. His manner was suspicious, and he was extremely cautious, inquisitive, and had fears about medication. His eyes were suffused, his pulse rapid, his head hot, and his cerebral circulation was over active. The galvanic battery was his horror, and he withdrew from it as from a viper the first time I employed it. We gained his confidence sufficiently to induce him to take the necessary treatment and to impart to us the information on inquiry, that he had years ago had a chancre which healed spontaneously, giving him no trouble, and to which he attached at the time no importance. A course of mercury, and iodide of potassium based on this information, combined with bromide, chloral, and galvanism, effected such a change for the better that the gentleman was enabled to resume his business as traveler—although he is now in charge of a commercial house—he was then a traveler—by the end of January. He has however, been kept on the iodide of potassium more or less up to the present time, it having been diminished in quantity from one drachm three times a day to ten grains in the morning.

In syphilitic hypochondriasis if a specific therapeutic impression can be speedily induced, and in the meantime the patient can be kept from home, and from self harm, he need not be sent to an asylum. Cases like this are in marked contrast with many of the cases of syphilitic mania, and general paralysis, usually met with in asylum practice, the attack comes on insidiously, and with insignificant prodronal symptoms, and may be made to improve

under persevering and heroic treatment, but they are none the less significant because in the beginning they give none of the usual signs of syphilitic infection; on the contrary it serves all the more to keep us suspicious. Dows, and all the best informed sypholographers have shown that the poison may work destruction to the cerebro-spinal centres none the less disasterously, when it enters the organism insidiously, than when it boldly marks its pathway with cutaneous and osseous changes; but it is exceedingly fortunate that in many cases of these victims of syphilitic involvement of the nervous system, that its first appearance in the central nervous system is ad neural rather than intra neural. This is in confirmation of what Dowse, and others have recently maintained and established; that some of the gravest form of nervous involvment in syphilis—of syphilitic nervous implication are found as a consequence of a very insignificant, sometimes scarcely appreciable initial lesion; and it is not necessary for us to be assured that the patient has gone through all the initial stages of the usual syphilitic appearances; it is unnecessary that he should have had a serious sorethroat; it is unnecessary that he should have had the cutaneous implications that usually charactarize syphilis in its grosser forms as has been most clearly shown by Dows in his treatise, and by Fornier and others; on the contrary it not infrequently happens that the remoter sequellæ of the syphilitic poison which seems to spread itself.

In some of these cases we find a marked history of external evidences of syphilitic implication that has apparently yielded to treatment and reappeared not in the bones, not in the skin, not in the throat, but in the central nervous system.

If I had intended to read this paper to-night, I should have presented some of the other forms of syphilis which have fallen under my observation of the more marked form of syphilitic mania, and syphilitic paresis, etc. but these cases of hypochondriasis, melancholia are not less real, none the less significant and none the less grave in their effects upon the organism. It is, however, very fortunate that when we encounter these cases of melancholia or hypochondriasis if we can find a history of syphilitic implication however slight, because we know the characteristic of syphilis in regard to the nervous system is to produce ad neural changes rather than intra neural. Thus Dows has clearly shown that the gummata deposits which makes the pressure which causes this disordered function are deposits and not

structural changes of the cells of the nerve fibre themselves, and in consequence these deposits are sometimes most naturally removed by a specific course of treatment and your patient is enabled to recover.

DR. BARRET.—Where are those deposits supposed to be?

DR. HUGHES.—This gummatous matter is deposited in the neurilemma and on the surface of the structure, and in the interstices of the nerve structure, it is not a breaking down continually of the structure itself. The most interesting contribution I ever read on that subject—that is on the subject of the implication of the nervous system in syphilis, was a contribution to the *London Lancet* some three or four years ago, in which the author, a man of large experience in this class of cases in hospital practice, gave the result of the post-mortem evidences in such cases as fell under his observation, and he drew a line of distinction between the neural implications and ad neural.

DR. JOHNSTON.—What is the greatest number of years according to your experience, that has elapsed from the initial lesion to the deposition of this material.

DR. HUGHES.—I have seen cases where the disease had yielded to specific treatment, where the history of syphilis dated back thirty or forty years prior and the patient had considered himself cured. You know all cure in real syphilitic diseases is relative and not actual. Then I have seen a case occur within a year after the syphilis occurred. I have seen a case where the disease began with the chancre—a well marked chancre, and the throat symptoms followed, and the nodosities appeared. I recollect one patient, a lawyer, who was brought to the asylum at Fulton with very pronounced destructive mania of a very decided character, who had marked nodosities on the tibia, and who had sorethroat; but it is very rarely that we find the throat and the bones, the skin and central nervous system implicated at the same time, as it is rarely that we find the throat and bones and skin affected simultaneously. My experience in the observation, of syphilitic disease of the nervous system has led me to make very careful inquiries in regard to all cases that have come under my observation, to ascertain if possible, the existence of a history of syphilitic poison at any time, and I have not hesitated to interrogate even the least suspicious of persons before I get

through with the case. I choose some favorable opportunity to interrogate in reference to whether there is not a possibility that there was a preexistence of syphilitic lesion. There is one thing in all these cases of mental trouble as in many other diseases, the usual signs fail—thus the obstinate frontal pain—intense cephalalgia which is so characteristic of syphilitic implication of the brain, especially of the meninges in sane people gives us no light oftentimes with the insane because they are often so insane as to pay no attention to any physical suffering.

Dr. Johnston.—Is it possible to distinguish syphilitic cephalalgia from sick headache without a history of either, while sitting at the bed-side. I cannot do it. There is a sick headache which is said to be hereditary, and to affect whole families, and I would like to know how we are to distinguish it from syphilitic cephalalgia without knowing the history.

Dr. Hughhs.—I think, Mr. Ghairman, it would take a very accurate diagnostician—more accurate than we find in the present state of our knowledge of the subject, to diagnose with unerring certainty the existence of one form of cephalalgia from another. Of course there are certain characteristic signs in regard to syphilitic pain which extend to the head as well as elsewhere. Syphilitic pain is more intense at night, and it never lets up. The megran will let up some times, and reflected pain will let up sometimes; nervous headache will let up and be modified by rest, but you cannot modify the syphilitic pain so easily. You can modify it of course with narcotics; you can modify it with remedies which directly diminish the circulation within the cranium as you can do in other pain, that comes from blood pressure. There is one thing about syphilitic pain that struck me in regard to constant galvanism, which I have never heard anybody speak of: it is more difficult to relieve than the hyperæmic headache. Hyperæmic headache can always be relieved by the constant galvanism— by the descending current—it is absolutely certain. I know there is no case of hyperæmic headache where there is no other implication that cannot always be relieved by the constant descending current. To relieve anæmic pain, the reverse current is used, the ascending current, which produces an increase of activity in the cerebral circulation. In the one case we contract the arterioles and diminish the vascularity, and in the other we increase the blood pressure:

DR. BARRET.—Is the relief permanent in these cases?

DR. HUGHES.—Well, it is permanent if the impression is maintained and effects the vaso motor constitution so as to restore it. In all cases of cerebral hyperæmia the condition is one of debility of the vaso motor system and control is lost. Dilitation takes place abnormally more readily in persons subject to cerebral hyperæmia than to persons with normal brain. If you apply a small quantity of nitrate of amyl to a person affected with cerebral hyperæmia, you produce intense headache immediately, while if you apply a larger portion to a well person, and a still larger portion to an anæmic person, the anæmic person will be benefited and the well person will suffer no inconvenience from the nitrate of amyl. I think that in cerebral hyperæmia pure and simple, where there is no structural change, that you can effect in say from four to six weeks treatment, the restoration in a person of ordinary vitality. You cannot do that in persons in advanced age; you cannot do it where degeneration has taken place, in which the hyperæmia has been of long standing, in cases in which the condition of the vessels, the arterioles, have become hyperæmic, and depositions have taken place. You cannot do it in the hyperæmia of old age, but in the hyperæmia of vigorous manhood, between thirty-five and fifty years of age—the time at which it most often occurs, and comes most often under our observation, it can be relieved with almost absolute certainty by the persistent application of the descending galvanism. This I have been able to demonstrate in a great many instances.

DR. WILLIAMS.—I would like to ask the doctor what his custom is as to the dose of iodide of potash. He says that in those cases he begins the treatment with drachm doses three times a day; I would like to know if this is his custom, to begin the treatment of these cases with drachm doses three times a day?

DR. HUGHES.—I very often begin, Mr. Chairman, the treatment of these cases with drachm doses, and have given six drachm doses and the patient tolerated it.

DR. WILLIAMS.—Six drachms?

DR. HUGHES.—Six drachm doses three times a day. That is not the usual dose, but I believe I have given two drachm doses of iodide of potassium three times a day in 20 per cent of my cases.

DR. HURT.—Do you always find it safe to give that amount?

DR. HUGHES.—I never found any unusual consequences—pain in the kidneys—in cases of undoubted syphilitic implication. I have many a time taken drachm doses myself to test the efficacy of the iodide, and to ascertain whether I could produce the characteristic eruption, and it never affected me in that way. I have given in rheumatic troubles, a drachm dose of iodide of potassium three times a day, and have had the satisfaction of seeing an arrest of the rheumatic difficulty of a very severe character within thirty-four hours. I cannot always do it. And I can say another thing that is a matter of my own observation, in regard to iodide of potassium: in large doses it is an amenagogue. A drachm dose of iodide of potassium in the morning for two or three mornings in a case of suppressed menstruation will often produce remarkable results and reestablish the flow. I have had occasion to observe this quite frequently.

DR. JOHNSTON.—Have you ever noticed that it produced any effect upon the mammæ of the female, or the testicles of the male?

DR. HUGHES.—Of course I am aware of the literature on that subject—that it has been said that it produces atrophy of the testes of the male, and mammæ of the female, when taken in large doses, But I have never seen anything of this kind take place as a result of its administration. I have given it in cases of rheumatism with satisfactory results. I have given it to my own wife and I have given it to other persons; but I never give iodide of potassium in those very large doses except where I have reason to suspect the existence of syphilitic implication of the system, and I presume these large doses under the circumstances act differently from what they would if given to a perfectly healthy person.

DR. JOHNSTON.—Did the drachm dose affect your stomach?

DR. HUGHES.—No, sir.

DR. JOHNSTON.—How do you give it—how do you dilute it and at what times?

DR. HUGHES.—I give it about an hour after the meals in a glass of water. I would not give either iodide or bromide of potassium in less than a glassful of water; I have not for the last

fifteen years given a full dose of bromide in less water than that. I give it after meals.

DR. JOHNSTON.—You don't believe that half the quantity is as good before meals as twice the quantity after meals?

DR. HUGHES.—No, sir, I don't believe in that theory. I believe when the processes are most active in the stomach for food, when the absorption is most active, when the appropriation of food is going on most actively, is the best time to put the medicine into the stomach to affect the system at large. Seguin has called attention to the subject in regard to the dilution of remedies, but it was in practice long before he called anybody's attention to it; he advises against giving large doses of medicine without giving it well diluted. This is a practice which asylum superintendants fall into: I fell into it at Fulton. It was my custom to give drachm doses of bromide of potassium at ten or eleven o'clock at night, and I gave it in a glassful of water.

DR. LOVE.—I will say in regard to the administration of bromide of potassium in large doses, that some years ago by the advice of Dr. Hodgen, when I was in charge of the city dispensary, and there were a great many syphilitic cases coming under my observation, including several well marked cases of syphilitic cephalalgia. During a conversation which I held with him in regard to those cases, he advised me to give enormous doses of iodide of potassium. I acted upon his suggestion from that time on and the effect was most marked, and since that time (which is some seven years ago) I have invariably given iodide of potassium in large doses—from 60 to 150 grains three times a day, and they were invariably well borne. I think with Dr. Hughes that the large doses are better borne in those cases, and I agree with him that the secret of the toleration of them by the stomach without producing irritation is the large dilution. In the matter of giving bromide of potassium by diluting it largely I have had most excellent results. I have had several cases of severe suffering in gentlemen who were recovering from the after effects of a debauch, they had intense headache, and great irritability of the stomach; nothing was retained at all; I have seen almost everything in the shape of food or medicine rejected, but by giving from 60 to 120 grain doses of bromide of potassium in a half pint of hot water I have found that it would almost always be retained, in fact it was more readily retained than anything

else, and it has a good effect upon the stomach. I have also tried in those cases, a remedy suggested by Dr. Hughes on a former occasion; that is, the injection of chloral, and sometimes it has acted nicely in producing quietness when nothing else would. I have never had anything produce the satisfactory effect that large doses of bromide of potassium largely diluted does. I believe also in having the water hot as I think it then exerts a better influence and that it is more readily absorbed, in fact I believe many remedies if diluted in hot water before being taken into the stomach would be very much increased in efficacy. Cathartics certainly are. Sulphate of sodium when given with hot water is, I believe a better cathartic than sulphate of magnesium. The sulphate of sodium given in the morning in large quantitities of hot watar will act in a little while—in a few minutes—sometimes half an hour. Hot water itself will sometimes act as a mild purgative on some persons. I have seen it act so I believe. I believe in largely diluting our remedies, and diluting them in hot water, not warm water, but hot water, and I am so much a believer in hot water that I give all my medicine in hot water where it is practicable; so that I am known among some of my patients as the hot water doctor. But it certainly is a good thing. In cases of persons who suffer from dyspepsia, I believe in the use of large quantities of hot water in the morning about an hour before meals. It has a good effect. I have not only advised my patients to use it, but I was a victim of dyspepsia myself for two years, and nothing was so soothing when there was undigested food in my stomach as hot water, and there was nothing that was so likely to make me feel like eating in the morning as hot water taken half an hour before breakfast. I think hot water in the treatment of dyspepsia is most excellent.

DR. LUTZ.—I would like to ask the doctor whether he begins giving these large doses at once?

DR. LOVE.—When I am giving it for the purpose of relieving rheumatism I would begin with a small dose. I usually prescribe a saturated solution and then each drop represents a grain. I would give ten drops at first and increase the dose gradually In syphilitc cases we can begin with a large dose as it is tolerated readily: I never saw an exception.

DR. JOHNSTON.—The Lord deliver us fron hot water except in the form of good soup! Had my young friend been born sixty

or seventy years ago and started in the practice of medicine when I did and had seen the hot doses that were forced down the throat of the patient, he would not insist on the use of the hot water practice now. In 1840 it was the common practice to give hot water. It was said you must give a cup of hot water and ten grains of calomel. In 1840 at Jefferson county, Kentuckey, if a man had given a dose of calomel in cold water, I believe he would have had to leave the country.

DR. LOVE.—The mistake was not in giving the water, it was in giving the calomel.

DR. JOHNSTON.—It was held at that time that if you gave cold you would inevitably kill your patient.

DR. LAIDLEY.—I present to the society the case of E. W. aged 26 who was injured about the 13th of August' 1881, while engaged in a planing mill. The injury consisting of, what is called a grooving saw, cutting open the cavity of the knee joint. As a result of injury an inflammatory process was set up in the joint, resulting in a contraction of the flexor muscles of the leg producing an angleing of the leg to about forty five degrees, almost right angles. The result of this injury and inflammation was not only the necrosis of the outer and upper part of the tibia, but also the production of bony union of the tibia with the external coudyle of the femur, also another union of the patella to the internal condyle of the femur. This is suppuration continued for a year producing a great amount of irritation. The patient lost flesh, was unable to sleep, and at various times fell and injured the knee keeping up the irritation; the fever was high, and he had no means of earning a living because of his illness and suffering, so that at last he petitioned me to cut his leg off. I examined the limb carefully, putting the patient under the influence of chloroform. I could not move the joint at all, and the conclusion was that there was a bony union. The family history of this man showed no evidence of scrofula, no evidence of consumption or hereditary taint, and the patient never had syphilis. This is a strong argument in favor of the idea tnat necrosis and caries of the bone may come from local causes. On the 3d of September he was etherized and the circular incision made from the head of the tibia around one side to the other, dissecting up the flap, and chisseling off the patella, which you will observe was attached by bony union to the internal condyle of the femur. We also found

a union of a part of the head of the tibia with the lower end of the femur or external condyle. The circular incision was made, and the flap dissected up, then by force the bony union was broken up, and the ligaments were cut through leaving the parts exposed and then the operation of exsecting the lower extremity of the femur and the upper portion of the tibia, was done, and trying to bring them together, I found that the contraction of the muscles was such that they would not permit of the straightening of the limb, so the external hamstring was cut by tenotomy. At the first section in trying to save as much of the limb as possible I did not cut off enough, and in order to bring the parts together, and make quite a respectably straight limb, I was compelled to resect more of the bone. The limb was dressed in as simple a splint as we could make. It was a simple iron splint three-eighths of an inch thick iron bent so as to extend down to the foot, and at the foot it was secured by a board, and then afterwards cotton was applied around the limb in order to protect it from compression by the plaster of paris afterwards applied. There was an open fenestra on each side which was intended to allow the proper dressing. The operation was performed tnder the spray, and Lister dressing was applied. Some time after the operation, an abcess formed undeaneath the bones which were united merely above. The abcess which was dependent upon an inflammation of the cellular structnre alarmed me very much, coming so soon after the operation, I thought he might have pyæmia, but the appearance of the abcess releive my mind, and after having relieved the abcess of hte contained pus the patient began to improve. He was kept on his back until November 11th, a period of seven weeks and during this time his leg was kept suspended in this simple splint. He was able to be about in about three and a half months. Dr. Johnston asked at the last meeting whether there was any advantage in making such a resection instead of cutting off the leg, and having a cork leg or something of that kind; I think that we have that question very well answered. We see in this case that he has a very useful limb. No cork limb or artificial leg of any kind could be as useful as this limb. He can get about on it after three and a half months without any trouble. The ankle joint is considerably weakened by want of use, and he complains that it distresses him through being so weak. Another point is the simplicity of the operation. The operttion is as easy to make

as an amputation of a limb. Any person who can make a successful operation can make this operation of resection successfully. Another point that I wish to call attention to is the use of this splint which was intended to hold the parts in proper relation. There are a great many splints that might be employed; there are splints with a great many complications, but this was a simple iron splint passing along the limb which had, as I stated, an opening—a finestra immediately over the knee which was intended to allow of the proper dressings made without disturbing the splint, after applying the splint the plaster of paris dressing was used and the limb was brought into a proper line and supported there by simple and proper extension.

DR. LUTZ.—This is certainly a very successful case. I want to ask the Doctor how he held the bones in position?

DR. LAIDLEY.—By means of the wire splint.

DR. LUTZ.—Simply the splint?

DR. LAIDLEY.—The splint was brought on the other side of the limb and was made in this manner: It was of two wires turned at the foot and brought on the inner side; then there was a foot board by which the foot was secured and that was bandaged to the extremity of the splint. After the leg had been properly protected with cotton, there were then crinoline bandages passed around the splint and that was hardened with plaster of paris. This bandage was applied to within two inches of the wound and then beginning about two inches above that, I bandaged the limb for about four inches above that, I found no difficulty at all in keeping the parts in their proper position.

DR. LUTZ.—There was no necrosis of the tibia?

DR. LAIDLEY.—There was a considerable amount of caries of the bone. I do not think there was any necrosis. There was death in the bone.

DR. LUTZ.—I mean there was no necrotic bone in the pieces you took out?

DR. LAIDLEY.—No, sir; it was broken down. I scraped it out with a chisel. The opening dipped into the bone an inch or an inch and a half, and in order to prevent the pus which might accumulate in this broken portion of the bone, I simply made a cut externally so that if any pus formed it would pass

outside instead of passing between the ends of the bone. Whether there was any formation of pus there or not, I am unable to say.

DR. LUTZ.—As to the nature of the splint, of course there are two objects to accomplish in resection of the knee. First, to secure immobilization and thereby keep the parts in proper apposition—the proper apposition of the bones; and in the second place, such a splint should be used as will allow of the proper irrigation,—the proper drainage—the proper discharge of any secretion that may accumulate, those are the objects to be accomplished by the splint. I used the MacIntyre splint, which is a very complicated affair. It occurred to me when the Doctor was relating the history of the case, that it differed in one essential point from the case in which I unsuccessfully attempted to resect the knee joint; it consisted in this, that evidently the necrosis of the bone was traumatic in its origin. I will relate the history of that case; it was of a young man upon whom I operated. In that case there was no history of traumatism. There could scarcely be a history of traumatism and he not know it, and he insisted that he had not injured his knee. Now, in cases where you have idiopathic inflammation, ostitis resulting in caries and necrosis, the process seems to be one less limited than when you have a piece of bone thrown off as the result of a local inflammation, as it were of a certain portion of the bone. I think Dr. Laidley's case is a very good answer to the question asked by Dr. Johnston. I believe the Doctor is a little enthusiastic about this case, simply because he has been successful, and he imagines any body else could be successful. I believe resection of the knee joint is a most dangerous operation and I base my conclusion on experience. I have two cases now in my mind in which I was highly unsuccessful in operations about the knee joint. Of course, those are the kind of cases that we don't ordinarily like to report, but they may as well be told as the cases in which we achieve a certain amount of triumph. I remember a case sent to me from Southern Illinois, of a young woman twenty-five or twenty-six years of age, who had a floating cartilage in the knee joint. You will remember that the books tell you to make an incision and the floating cartilage will jump out; then put the leg in a splint, dress it and keep it quiet and the patient will get well. I saw this case just about the time that I was enthusiastic in the employment of strict antiseptic dressing, and I believe I per-

formed that operation as carefully as I knew how. I am satisfied that the incision was not into the joint; it was not within half an inch of the joint. The body readily slipped out and in thirty-six hours the patient died. Then again, last summer, I operated on a young man seventeen years of age, who, I think, weighed about 190 pounds. I performed an opereration for knock knee. He had been a baker's apprentice and was obliged to be on his feet a great deal and it seems as if his lower extremities were hardly able to bear the superincumbent weight, so much so that the internal lateral ligaments of the right knee became stretched and their being an absence of the head of the tibia, the internal condyle was larger than normal, so that he had a typical case of knock knee. He could not walk except with a crutch or cane. That leg wasn't of much use to him because it wouldn't hold his body. It was suggested to his parents that we perform this operation, which consists in cutting off the internal condyle of the femur and pushing it up, straightening out the leg and then dressing the leg as you would a simple fracture, the idea being to get the internal condyle higher up. This patient lost very little blood of course, there was no occasion for it. I first made an incision, cutting down with the knife through the periosteum and then inserting a saw on the inner side—an Ogden's saw, which consists of a long handle and short blade, I cut off the condyle—the internal condyle forced the foot over. Everything seemed to get along nicely and smoothly, but a most dangerous cellulitis set up, first in the thigh and then the whole leg became involved. I opened abscess after abscess, but could not get the consent of the parents to amputate the leg, which was the only thing that could save him, in my opinion, and the boy died of pyemia. The record of the operation is a brilliant one. In the last report of the German Congress, a surgeon reported seven or eight cases. Ogden himself reports cases in which he operated and cut out a V shaped piece in resection of the knee joint. So that there have been brilliant successes achieved with it; I don't know whether I performed the operation properly or whether it was the peculiar condition of my patient's constitution, which was such as to make him a poor subject for operation, and thus account for my failure; whatever the case may be, it is one of those causes illustrative of the danger of operating on the knee joint. In cases of joint trouble, where the injury to the joint has destroyed its original

identity to such an extent as to allow us to perform almost any kind of operation on the joint; where it has been long diseased, I believe in such a case, surgical procedure about the joint is not so dangerous. I believe that whenever we attempt to perform that kind of surgical operation upon the normal joint, we are risking a great deal, and these cases of resection are mostly performed for secondary troubles; when they are performed for gun-shot wounds or for recent troubles of other kinds, the percentage of success is very much smaller than in old troubles. For a long time, in gun-shot wounds in the knee joint, surgeons amputated the leg. Dr. Hodgen was the first surgeon, during the war, who performed resection of the knee joint instead of amputation.

ARTICLE XXVIII.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

[Reported for the JOURNAL.]

THURSDAY EVENING, Dec. 28th, 1882.

The President, DR. JAS. TYSON, in the chair.

Tuberculosis of Spleen, Liver and Kidneys. Exhibited by Dr. Shakespeare

These specimens were presented without a history of the case and showed exuberant vegetations in pericarditis, abundant miliary tubercles of pleura, of the liver, of the spleen, of the lymph glands in the region of the head of the pancreas. The subject came from the medical wards of the Philadelphia Hospital, and was last under your care, Mr. President, as visiting physician. They are brought to the notice of the Society mainly because the autopsy was made this after-noon, and because many of the members have not had opportunity of examining such perfect examples of extensive and diffuse tuberculous infiltration without more serious involvement of the parenchyma of the lungs.

Autopsy six hours after death of C. J., colored, æt. 60. Diagnosis.—Pericarditis and pleuritic effusions with strong bands of adhesions between parietal and visceral pleura. Thorax.—Left

pleural cavity completely obliterated by adhesions; right pleural cavity contained a large amount of straw-colored serum. The lower lobe was firmly adherent to the diaphragm, and the three lobes were strongly united by adhesions. The parietal pleura was thickened and everywhere studded with minute grey semi-opaque miliary tubercles; the visceral pleura was in a similar condition, except that the tubercles were less numerous. The cut surface of the left lung presented nothing abnormal save absence of air, but the sense of touch showed beneath and near the pleura a few scatered minute points much smaller than millet seeds. The pleura of the left lung was also studded with numerous miliary tubercles, and the tissue of this lung was similar to that of the right. It was however crepitant. The pericardial sac contained 2½ ounces of straw-colored serum. The whole heart was covered with an exuberant crop of vegetations. The cardiac walls were perhaps slightly softer than usual; otherwise normal. Abdomen—Peritoneum normal; no effusion. Liver slightly enlarged, with surface here and there raised by flat elevations ranging in size from a hemp-seed to that of a hazel-nut; capsule normal. The nodules were firm and of a yellowish tint; the intersecting tissue was of a dark red color. A deep section of the organ revealed similar nodules diffused through its substance which seemed otherwise firm and normal. The spleen was slightly enlarged, firm, and extensively infiltrated with tubercles. The pancreas was normal, but the lymph glands near it were much enlarged, but neither softened nor caseous. No caseous focus was anywhere detected. The kidneys appeared normal except one or two, more or less pyrimidal yellow points. The case presents several points of interest. 1: Former history unknown. 2: Several aspirations removing considerable pleuritic fluid. 3: What was the origin of the numerous tubercular irruptions, and if there was antro infection, what was its probable source? [Dr. Tyson then gave a résumé of the ante-mortem history.]

Dr. Tyson said he regretted having to admit that he was less familiar with the history of the case than he should have been, since the patient was in his own ward in the Philadelphia Hospital. He had been previously thoroughly studied by Dr. Bruen, whose absence he regretted, as Dr. Bruen knew so much more about the case. The man had however been more than once tapped. He was a colored sailor, aged sixty years. When Dr. Tyson took charge of the ward in September, the man presented

the physical signs of double pleuritic effusion, orthopnœa, a feeble transmitted heart sound, but no cardiac murmur. There was œdema of the legs. He was tapped with great benefit, and under a restorative treatment he rapidly improved, so that he soon became one of the walking cases in the ward, attracting little attention. About December 1st he became very much worse. The orthopnœa and other signs of accumulating fluids returned and so did the œedma of the legs. His urine was repeatedly examined for albumen with negative results. He was tapped upon the rght side and three pints of flnid removed, with bnt partial The other side was also aspirated with out success. A cardiac friction sound was noted which seemed to be pleuro-pericardial but in the light of the autopsy it was probably pericardial. He died on the 13th of December.

With reference to the case cited by Dr. Formad, it had also seemed to be a simple plastic pleurisy, with feeble, distant heart sounds, with no murmurs occurring in a case where after prolonged illness death resulted from exhaustion. Dr. Tyson had never seen such extensive new formations resulting from serous inflammation. The large lymphoid masses in the abdomen having at first suggested the idea of malignant disease. The patient had a distinctly scrofulous history. The father had died of pleurisy with cheesy deposits, followed by miliary tubercles of the lungs later in life. Four or five uncles and one aunt had all died phthisical from between 20 to 30 years of age. Dr. Barthlow asked if the range of temperature accorded with that usually found in phthisical cases. Dr. Tyson said that in the cases related by Dr. Formad the temperature was seldom if ever above 101°, mostly below this point. In the case reported by Dr. Shakespeare, he was unacquainted with the temperature record.

Dr. Formad here related a case of general tuberculosis and showed the specimen but no notes having been forwarded to the recorder, any fuller account than the remarks of Dr. Tyson is impossible.

Dr. Nancrede demurred to the view that repeated tapping had any causative relation to the development of tubercle after pleurisy but thought that the chronicity of the affection and altered condition of the pleural sac which demanded frequent operations, were the real explanations of the alleged fact.

Dr. Musser said that a relation between pleurisy and pulmonary tuberculosis could not be denied, but whether the pleurisy or

the tuberculosis be antecedent was difficult of solution. That the former is primary may be inferred from the fact that persons are considered as threatened with phthisis who have sub-clavian arterial murmurs due to the pressure or pulling on the artery of organized lpmph. Likewise are the various friction sounds and exocardial murmurs noted to precede tuberculosis, and especially to occur in those tuberculously predisposed. Examples of both cases have come under his observation. It seems to him that a primary acute pleurisy is a rarity, occurring in a non-tubercular subject. The last series of cases, which would be called primary pleurisy, he had seen were in persons predisposed to tubercle, and in some of the cases tubercle subsequently developed. In short, so-called primary plastic pleurisy occurs only in tuberculously disposed individuals; other forms are secondary to some other process, as Bright's disease, septicæmia, etc. Trusseau calls attention to latent pleurisies with effusion, as being often an expression of a tuberculous diathesis. While also a latent pleurisy may occasion developement of that diathesis. Two cases illustrating these views have lately come under his notice.

Dr. O'hara said that although he had not had much experience with latent pleurisy, he recalled a case of a young man seen five years ago where entensive effusion into one side of the chest had unsuspectenly occurred, and when detected had been removed by tapping. Apparent recovery then ensued to be followed in a few weeks by copious effusion into the other pleural cavity. Tapping was again resorted to, the effusion never recurred and the patient remains healthy and free from tubercle at the present time. He would like to ask if when the term "all the serous membranes were affected" was used, those of the brain were included.

Dr. Tyson replied that there had been no head symptoms in the sailor's case. In that mentioned by Dr. Formad, decided mental aberation demanding watchful restraint had been present. No inflammation of the meninges had been found, the only disease consisting of a small tubercle starting from the pia-mater, and dipping down into the brain substance.

Dr. Shakespear closed the debate by referring to the causes of tuberculosis in general and its modes of diffusion through the organism. He called attention to the failure in discovering any caseous focus, while admitting the possibility of such, if minute, escaping the most painstaking search in this and similar cases; all that could be safely said was that the caseous point was not

found. Assuming, for illustration, that the point in the kidney might have been the origin of the auto-infection in this case, he refers to the communication between the left renal vein and the inferior mesenteric vein, and the direct communication with the portal system thus effected. As to the point raised by Dr. Musser he believed in plastic pleurisies distinct from tuberculosis. He had examined very many microscopic sections of the plastic adhesions and very many had proved to be free from tubercle.

Authors, who have made original investigations on man and the lower animals, have also as distinctly recognized a plastic pleurisy without tubercle as they have one associated with this formation. He thought tapping in a person not predisposed to tubercle was no more likely to produce this disease than tapping an anæsarcous limb. He was well aware of the facts dwelt upon by Drs. Musser and Formad, viz., the association of tapping with tuberculosis, and of plastic pleurisy with tuberculosis, but he believed that the frequency of this association had been exaggerated. He thought that in view of the well grounded belief that in certain classes of animals. as well as in certain families of men, inflammation tends to linger, to produce accumulations which are prone to degeneration, and to excite local or general tuberculosis. It is more logical to conclude that in such cases as above mentioned, there is at the outset a tainted constitution—a soil already sowed with the dormant seeds of disease, waiting to be awakened to their active processes of destruction by the stimulation of an exciting cause. The more frequent the action of the exciting cause the more certain is this dormant tendency to be aroused.

Dr. Shakespeare then proceeded to combat the views advocated by Dr. Formad in this debate, owing to their non-reception by the Recorder, Dr. Shakespeare's remarks are also of necessity omitted.

Two Cases of Carcinoma of the Stomach. Exhibited by J. H. Musser, M. D.

CASE 1. Scirrhus of the pylorus; general proliferation of the connective tissue; interstitial nephritis. Malignant disease of the pylorus and of the lesser curvature of the stomach was diagnosticated when the patient applied at the medical dispensary of the University Hospital, May, 14th. 1882, for treatment, on account of the physical signs especially, and of some points in the clinical history. Palpation and percussion revealed a firm non-pulsatile, immovable, slightly painful tumor in the middle of the epigas-

tric region, one inch to the left of the median line, about the size of a turkey egg. When lying down, the abdomon was slightly scalphoid, but the left upper quarter was distended. A curved line extending downwards from the umbilicus to the flanks represented the lower limit of this swelling which was soft and resistant, tympanitic on percussion and with eare could be discerned as starting from the hard tumor in the epigastrium. In short it was due to a distended stomach. Although the tumor was not in the position of the pyloris, and although the patient had never vomited, yet pyloric disease was determined upon because of the gastric distention. On account of the absence of marked obstruction, the position and the occurrence of pain in the lumnar region, disease of the lesser curvature and the posterior wall was decided upon. The autopsy revealed the malignant growth surrounding the stomach at the pyloric end, but being greater in extent in the lesser curvature. An adhesion to the left lobe of the liver explained the position of the tumor. The patient first noticed the localization of the disease in November, 1881 by the occurrence of pain in the epigastrium, following a jar. She noticed that her health had failed three months before, and that menstruation had ceased six months previous to the epigastric pain. Note here the failure of health before any local evidences of disease, not even dyspeptic symptoms. She was a widow æt. 40 years, with one child, her health had always been very good, her circumstances moderate, and her habits exemplary. In addition to a constant burning pain increased by food, her appetite was poor, tongue pale with enlarged papillæ; flatulency was marked and the bowels constipated. She presented a sallow cachetic appearance, was somewhat emaciated; extremely anæmic, with cardiac arterial and venous blood—murmurs and accelerated second sounds.

She was under observation until her death, October 17th. 1882. The pain and constipation were relieved by treatment, but the course was only downwards. In addition I may note the cachexia became more marked, and the classical appearance of the face was wonderfully depicted; transverse and verticle lines on the forehead and semicircular lines around the mouth from the alæ of the nose to the chin, and vertical lines on the chin and lower lip. The hue of the countenance changed, growing darker and darker. This peculiar hue of the face Dr. Musser considered the most reliable sympton of approaching dissolution. It was noted one month before death. During the last two months of her ill-

ness she suffered much from soreness of the mouth and tongue without visible lesions; from burning in the fauces; difficulty of deglutition, acidity; vomiting taking place every third or fourth day of a clear acid fluid, coagulated milk, bile strained and "coffee ground material". A painless watery diarrhœa occurred frequently with tarry masses. Œdema of the feet and ankles took place six weeks before death. The tumor grew in size and changed position, falling downwards. Three days before death it was noted to pulsate, was tender, and was three inches long, extending from the median line to the left, on a level with the umbilicus.

Autopsy 12 hours after death. Extreme emaciation; rigor mortis marked; œdema of the feet. Heart slightly enlarged, the left ventricle walls 8¾ lines in thickness; heart weighed seven ounces; aorta 1 inch 1¾ lines in diameter, and slightly atheromatous. Deposits of fat along the septum were noted, and the muscluar tissue itself was fatty. The stomach was in het position defined a few days before death, was greatly dilated, with the disease at the pyloric end extending along the lesser curvature four, and along the greater curvature two inches and completely encircling the organ. The stomach walls became thickened with much hypertrophied muscular coat as they approached the diseased area. The internal surface of the tumor was flat, elliptical and defined by an everted lip of varying thickness about four lines high. The surface was uneven, some nodules being half an inch thick. The most central portion presented distinct evidences of ulceration.

The liver was rather larger than normal and seemed fatty and was not indurated. The kidneys were small, hard, and the capsule peeled off with difficulty. Microscopic examination of the stomach, liver and kidneys, Dr. W. E. Hughes assisting, showed abundant irregularly shaped epithelial cells packed closely in a fibrous stroma, but slightly developed in and containing numerous nuclei. Liver cells fatty and pigmented. Proliferation of the connective tissue around the hepatic and portal veins was noted, many nuclei proving its recent origin. The kidney was markedly cirrhotic, the connective tissue being *not* of recent formation. Note the general proliferation of connective tissue in the organs. No albumen was detected in the urine, during life, nor were any renal symptoms noted, yet there was undoubted interstitial nephritis belonging to the variety described

by Gull, Sutton and Mahomed. The mal-assimilation consequent upon the gastric lesion, was the predisposing factor in the production of this general change.

CASE II. Scirrhus of the Pylorus; Symptoms simulating idiopathic anæmia.—F. R., æt. 54, white, German. Resident of a healthy locality, but much exposed as lumberman during the winter. Addicted to constant use of spirits, malt-liquor and tobacco. Had a fever of six weeks' duration at the age of sixteen years, and eight years ago, some pulmonary inflammation. Never had malaria or syphilis. Does not know cause of mother's death; seven brothers and sisters, healthy; father died of old age; his own three children living and healthy. Admitted to University Hospital, Dec. 20, 1878. During the previous winter had numerous gastric attacks, as shown by pain and loss of appetite. In the spring and summer he lost flesh and strength and was subject to pain in the bowels and in the hepatic area, flatulence, pyrosis and constipation but never vomiting. On account of salivation in June, he became especially debilitated. At time of admission, weight, 118 pounds; usual weight, 170 pounds. Lies on left side; perfectly apathetic, with the physical and mental processes slow of action. Extremities cold, very anæmic, conjunctiva and mucous membrane very pale; sclerotics, pearly white; complexion of a sallow, dirty hue. Palpitation of the heart, dyspnœa and subjection, ear noises were noted. Temperature irregular. Appetite poor, flatulence and pyrosis, pain and tenderness in epigastrium; no definable tumor, but a sense of induration. Hepatic and splenic area of dulness, normal. Heart sounds weak. Urine, sp. gr. 1018, neutral reaction, albumen one-sixth. No casts, bile or sugar. Phosphates not in excess.

Blood.—White corpuscles in excess; red, greatly decreased in number. Ophthalmoscopic examination.—slight retinitis; O. D. palid; central artery dilated. Venous blood paler than usual. Absorption of choroidal epithelium, allowing choroidal circulation to be seen. Macula healthy; no hemorrhage throughout fundus. Both eyes present the same appearances. A low typhoid state soon developed with diarrhœa and excessive flatulence. For three days prior to death, vomiting occurred. He died Dec. 30, 1882.

Autopsy.—Stomach alone examined. It is to be regretted

that the full record was lost. Stomach adherent to liver and transverse colon. Lesser curvature from pylori half way to cardiac orifice, infiltrated with cancer, extending two inches over the anterior wall and at the pyloris encircling the organ. Pancreatic and biliary ducts pervious. Microscopically, the the growth was found to be scirrhosis carcinoma.

Remarks.—On account of the profound anæmia and the absence of tumor and vomiting, idiopathic anæmia was considered. The examination of the blood and the condition of the eye ground, contra indicated such a diagnosis. The normal size of the liver and spleen, and the non-glandular involvement excluded leucocythemia. It is to be regretted that the exact numerical blood count was not recorded. In this case the lesser curvature was very much involved, and distinct tumor was absent; quite the opposite of Case I.

Tumor of Brain. Presented by Dr. A. B. Brubaker for Dr. H. Leaman.

John Jones, æt. 53, laborer. When first seen, the patient was lying on his back, with head drawn backwards into the pillow and complaining of stiffness and soreness in back of the neck. The mouth was widely opened and parched and the breathing deep and heavy. He was in a semi-unconscious condition from which, however, he could easily be aroused, but soon relapsed into his former state which was attended by stertorous breathing. Speech and deglutition were both interfered with, but not abolished. There was involuntary passage of urine, but the bowels were constipated. Venereal ideas were excessive, but accompanied by complete impotence. Voluntary movements of the extremities and also the power of co-ordination were considerably impaired. Pulse and temperature were normal. Liquid food was taken with difficulty. His condition had been as described, four days previous to my first visit, on Sept., 4, 1882. The symptoms gradually increased and coma supervened, which ended in death, Sept. 18, 1882.

Following history was obtained from the family: Twenty-six years ago, the patient was confined to bed with "nervousness," for a period of two years, when he passed a calculus about the size of a date seed; again a month later, another smaller one one. His bladder continued to give him more or less trouble up to death. He had his clavicle broken nineteen years ago, but here was no injury to the head. About sixteen years ago he

was suddenly seized while at work, with a severe headache and became totally blind, which lasted for twenty-four hours. This was relieved by wet cups to the back of the neck. From that time he was subject to what they called "shaking spells,"—when standing, there would be a violent trembling of the knees and shaking of the arms. These attacks occurred about once a month and occasionally three or four times a day. They increased from year to year, in frequency and severity and appeared to be excited by high winds and storms. In Feb., 1882, he was seized with paralysis, beginning in the left little finger, thence gradually extending to the ring and middle fingers, until the hand became powerless, but was able to move his arm. Then followed a numbness in the outer side of the left side, attended by impairment of the power of co-ordination, so that on attempting, he was compelled to run to keep from falling. He frequently fell in the street and had to be carried home. Last February, loss of of speech supervened, which lasted for one month; the patient then began to speak in monosyllables, after which speech grudually returned.

Autopsy.—Congestion of the entire Brain.—By removing it, four or five ounces of serum ran from the cranial cavity. Brain substance seemed to be normal throughout. In the right fissure of sylvius, was embedded a tumor about an inch and a half in diameter, which was almost entirely concealed from view by the convolutions. It rested upon the convolutions of the island of Reil, completely disorganizing them. The inferior extremities of the ascending frontal and parietal convolutions were normal. The upper surface of the temporo-sphenoidal lobe wore somewhat disorganized. The tumor apparantly sprang from the pia-mater.

Report of the Committee on Morbid Crowths.—A section made from the tumor presented by Dr. Brubaker and examined microscopically, showed that the growth was tubercular. Its histological structure is seen to consist of fibrous tissue constituting a reticulum, the meshes of which are filled with lymphoid cells. These appearances are very distinct at the peripheral zone of the tumor, while the center and inner zone are in a state of retrograde metamoryhosis, presenting a very granular appearance, scarcely stained by the carmine. The blood vessels are mostly obliterated, their lumen being filled with coagulated blood or granular debris. Dec., 25, 1882.

Enlarged Lymphatic Glands. Exhibited by Dr. W. H. Parrish.

I show five lymyhatic glands, removed from the axilla of a patient whose breast I amputated about nine months ago. The case was then reported at the Obstetrical Society, and was published in the *Medical News* of July 8, 1882. The specimen was referred to a committee, and Dr. Beates made a microscopic examination and concluded that the growth was an adenoma that had undergone carcinomatous change. Of the enlarged glands presented this evening, three, about the size of an almond were removed from the axilla. A fourth, of smaller size, from just below the clavicle, and the fifth, from the side of the neck about an inch from the clavicle. The patient presents no cachexia. The specimens were referred to the Committee on Morbid Growths.

Polypi from the Uterine Cervix. Exhibited by Dr. W. H. Parrish.

I also present, this evening, two small growths, each about the size of the last phalanx of the thumb, removed to-day with a wire ecrazeur. On Christmas eve, I saw for the first time, a patient of French birth, a teacher, apparently about thirty-five years old. When I entered her room she was in a state of syncope, from hemorrhage from the genitals. The hemorrhage had, however, ceased. With the application of hot wet cloths over the chest, and hypodermic injections of whisky and aromatic spirits of ammonia, she, in a few minutes revived, so as to be able to tell me that she had not menstruated for three months, when suddenly bleeding began from the womb and continued during the day, with an exacerbation just before sending for me. As the patient's condition was evidently a critical one, I asked the direct question, if she had not had, or was not having an abortion? She said it was impossible. I then learned that she was single and forty-two years old. A digital examination showed an intact hymen, and a substance in the vagina, that at first touch felt very much like an embryo of about three months. But I soon recognized that it was a growth attached to the lower part of the cervicle canal, and that there was another distending the cervicle canal. The latter felt still more like an embryo or ovum, and in fact in the absence of the one in the vagina might have at first misled me into thinking that the patient was aborting. Slight traction on it soon showed that it was attached. There was no return of the bleeding and to-day, with the

assistance of Dr. M. O'Hara, I removed both the growths with the wire, and without etherization or the use of a speculum. A remarkable feature of the patient's history is that she had always menstruated scantily and at intervals of five or six weeks. Never before had she evinced a tendency to uterine hemorrhage. I am confident that the patient was not pregnant. I presume that, being vaginal, she is approaching the menopause.

THURSDAY EVENING, Jan. 11th, 1883.

The President, DR. JAS. TYSON, in the chair.

Condylomatous Tumor of the Labium. Exhibited by Dr. Nancrede for Dr. C. M. Seltzer.

Mrs. ——, contracted syphilis nine years ago, from her first husband. Has had specific treatment at intervals, but never prolonged beyond a few weeks each time. Condylomata and ulcerations around the vulva, anus and perineal region were first noticed about three years ago. She first came under my observation and treatment June 1st, 1882, at which time symptoms of her disease were very pronounced, such as cachexia, nervousness, nocturnal headache, ulcers on various portions of the body, numerous condylomata, of which the specimen exhibited was the largest, being a cauliflower-like excrescence springing from the left labium majorem, having a pedicle about two and a half inches broad. The clitoris was hypertrophied, forming a knob one inch in diameter. There was urinary incontinence, and consequently severe excoriations of the external genitals. Potassii iodii and hydrarg. bichlorid. were given, upon which there was pronounced systemic improvement. Local treatment failed to remove the condylomata, hence on the 13th of Nov., two double ligatures were passed through the pedicle of the largest so as to divide into three parts, they were then tied tightly and the mass removed, and the stump cauterized with nitric acid. The clitoris was so sensitive, even under profound anæsthesia, that it was thought best not to remove it. The patient made a good recovery in ten days, including the cure of the urinary incontinance. Her second husband, to whom she has been married about six years, has no evidence of having syphilis. Her only child, by her first husband, has stricture of the rectum and obstinate fissure of the anus, improvement of which only began upon

the recognition of their specific origin, and the consequent line of treatment. Dr. Nancrede suggested the reference of this specimen to the Committee on Morbid growths, since two somewhat similar specimens had been presented by Drs. Formad and Baer, which were myxomatous fibromata, although not due, as in the present instance, to the irritation of some sore on abrasion by discharges, etc., in a syphilitc, yet probably their histological structure was identical.

Small Tumor of the Head of the Pancreas. Presented by Dr. E. T. Bruen.

The mass herewith exhibited, occupied the head of the pancreas, and is about as large as a pullet's egg, *i. e.*, or about two and a half inches in diameter. When removed from the cadaver it was closely adherent to the common bile duct. The growth is of a colloid nature, but its histological character is as yet, unsettled by microscopic examination. There were no secondary deposits in any other viscera as is the rule in colloid growths. The patient was a male æt. sixty-five years. For two years prior to date of his death, there had been intermittent attacks of jaundice. This had been attributed to catarrh of the biliary duct, which had developed itself during an attack of malaria. The case was under my care for two months. At first the symptoms of chills and fever led to treatment for malaria, but as the jaundice gradually deepened, treatment for the supposed catarrhal state of the bile duct was instituted. The futility of a well directed and usually successful treatment was the special indication of some more substantial causes. Hepatic trouble or biliary calculi were readily excluded in this case, but there was nothing to fasten suspicion on the pancreas. There was constipation with clay-colored stools. There was febrile movement of a hectic type—the so-called hepatic fever accompanied by irregular chills. The intestinal indigestion, so valuable a symptom in many cases of pancreatic disease, was not marked. Indeed, without exception, the negative results of the clinical record are of the most discouraging character. The case is presented because each case of pancreatic disease ought to be recorded, so that many cases viewed collectively may contribute to the clearness of a future distinct picture of pancreatic disease. Dr. Formad said that he had now on record, the notes of five or six cases of cancer of the pancreas without marked jaundice, where he had made the autopsy. It seemed to him that the jaundice

was most persistent in primary pancreatic carcinoma from pressure on the bile duct. He was present at the autopsy of this case anddid not think that the tumor was carcinomatous, as there would then probably have been secondary growths in the liver. The growth was probably a cystic colloid. Dr. Bruen would like to call the attention of the society to the fact that he had, about a month ago, presented a specimen of carcinoma of the pancreas and had then referred at length, to some forty cases of jaundice, due to primary carcinoma of the head of the pancreas, lately reported by another observer. From these records it was demonstrable that jaundice was an invariable symptom of primary hard carcinoma of the head of the pancreas, while it was uncommon when the disease was secondary or affected other parts of the organ.

Diaphragmatic Hernia. Exhibited by Dr. Jas. Tyson.

The patient from whom these specimens were removed, was a German between the age of 27 and 28 years of age at his death. He first consulted me on June 21st, 1880. He had then been ailing since Feb., 1878 and had been unable to work in that time. At the date referred to he was stretching when his wife suddenly pretended to tickle him; he quickly threw down his arms, and at that moment felt a sensation of "pain in the left side, in the neighborhood of the heart." At the same time he felt faint and cold. In five or ten minutes these sensations passed away, but he remained very much frightened. When he first visited me he complained of shortness of breath and beating of his heart, although the latter was better when he was quiet. He could not even walk across the floor without becoming completely out of breath, but he said he was not short of breath when the accident first occurred. He had also a peculiar puffing respiration which did not occur, however, with every act of respiration, but once in four or five. This was so characteristic that one of my friends to whom I sent him, spoke of him as my "puffing German." There was no caugh. Physical examination revealed, on inspection, almost total absence of movement of the chest wall in the upper half, the respiration being almost purely abdominal. The upper percussion border of the heart corresponded with the junction of the third rib with the sternum, and the right border with the middle of the sternum. The apex beat was in its normal position, but was more diffuse than in a strictly normal

state. Pulmonary percussion appeared normal except below the left scapula where resonance was less than in the corresponding situation on the right side. Vocal fremitus was, however, impaired over the whole of the left lung. There were no abnormal cardiac murmurs. His pulse was 72 after the examination was over. He was treated at various times with digitalis, bromide of potassium, chloral, tonics, etc., and even a blister was put over his heart, with the view that there was some cardiac, or pericardial affection though the physical signs were wantnig. There was no improvement, although at times the dyspnœa, which was the most distressing symptom, seemed sometimes less, but it always interfered with any exercise whatever. He would walk, sometimes half a mile with great difficulty; notwithstanding this he was encouraged to take exercise. His sleep was unsatisfactory, he would dream and wake up in a great fright. He could always lie upon his left side with more comfort than upon his right. He continued under my observation for a year. I saw him in the latter part of August, 1881, when he seemed a little better. After that I heard nothing of him until I learned of his death, which occurred Dec. 15, 1882, from obstruction. At the autopsy it was ascertained that about twenty inches of the large intestine with its corresponding mesentery and almost the whole omentum had ascended through the œsophageal opening of the diaphragm into the left pleural sac, encroaching upon the space occupied by the left lung until the latter was compressed into the apex of the left pleural sac and was reduced to a cylindroid mass about fifteen centimetres in length and half as many in diameter. There was no hernial sac, the opening being that for the œsophagus. The case would therefore be technically called one of hernia diaphragmatica spuria. The heart was displaced to the right, but was otherwise normal; the liver was slightly fatty, but the other viscera were normal. It is not unlikely, at the moment referred to in the history, when the patient threw down his arms, that a small portion of the omentum or mesentary slipped through the œsophageal opening, and that subsequently and more or less gradually the vacuum tendency of the pleural sac in each act of respiration caused the remainder of the mass to be drawn in until the entire cavity was occupied. This accounts for the fact that there was no dyspnœa at the beginning, but that it gradually increased as the thoracic space was intruded upon. In Vol. 81, 1882, of "Virchow's Archives,"

will be found an exhaustive article on Diaphragmatic Hernia, in which 291 cases are collated. In a somewhat hasty examination of this paper, I have been unable to discover a single case so long under observation as this—nearly four years. Many cases were discovered at the autopsy, and had been unsuspected, others were congenital, and others were traumatic. Dr. Formad related some facts confirmatory of the history given by Dr. Tyson. Dr. Bruen asked if there had been any hiccough? If so, was there any dysphagia with solid food? Finally, did the physical signs suggest pneumothorax? Dr. Roberts made some remarks with reference to the diagnosis and to the possibility of laparotomy in similar cases. He also asked whether the symptoms just preceeding death were those of strangulation? Dr. Davis referred to thirst as a promiment symptom, according to Lawrence. Dr. Tyson replied that Dr. Formad had told him that there was decided hiccough. There was no true tympany with the absence of the vocal fremitis. Nothing gave rise to any suspicion of its true nature. Thirst was marked. There was no dysphagia.

Ulcer of the Stomach in the Anterior Wall; Adhesions to the Abdominal Wall; has Hemorrhages and Pain; Death from Morphia Habit. Exhibited by J. H. Musser, M. D.

I am indebted to Dr. J. Henry Musser, of Lancaster Co., for the privilage of presenting this specimen. I abstract from his notes the following history: J. J., æt. 71 years, millwright. Fourteen years before his death, he was attended by the doctor for hematemesis occurring after three days of nausea. Over a pint of blood was vomited and considerable was discharged by stool the next day. In ten days he returned to work and enjoyed good health for two years, with the exception of occasional attacks of indigestion. Then a recurrence of nausea, followed by a profuse discharge of blood, per anum, occurred. He made a full recovery, but pain after eating was now noticed. Two years subsequently he bled very much from a wound of the foot, was much prostrated thereby. This was succeeded by severe pain after eating, with marked epigastric tenderness. The constant use of narcotics alone gave him relief. Nov., 1873, he was again under Dr. Musser's care and was treated for gastric ulcer, without any avail, save when he exhibited narcoties. He resorted to the use of morphia, and continued its use during the remainder of his life. Change of diet did not influence the pain and he par-

took of laborers' fare. In 1877, a small tumor to the left of, and several inches above the umbilicus, hard, tender and apparently involving the abdominal wall, was discovered. For several years he worked in a country saw-mill, using one drachm of morphia a month. Heavy lifting aggravated his pain. Aug., 1882, the doctor was again called in to find the patient confined to bed, much emaciated and with complete anorexia. Death took place three weeks later, during which time he had taken no nourishment, but had used morphia freely. The habit had been acquired, as his friends thought he suffered but little pain. The only anatomical alteration noted at the autopsy, was the change in the stomach, The organ was enlarged and contracted (hour-glass) towards its fundus. The anterior wall, one third of the distance from the fundus and at the point of constriction was adherent to the abdominal parietes to the left of the medial line, three inches above the umbilicus. Opposite to the point of adhesion in the mucous membrane, there was a small ulcer two lines deep and six in diameter, with clean cut edges, a healthy floor and surrounded by cicatricial tissue for a radius of one inch. Undoubtedly the ulcer would have healed entirely, had not the morphia habit cut off the patient.

Remarks by Dr. Musser.—It is plausible to theorize that the first hemorrhage, taken with the profuse foot hemorrhage, was due to the patient having been of a hemorragic diathesis, and that the second gastric hemorrhage was from the same cause and was attended by a hemorrhagic infaret with subsequent development of the ulcer. Especially is this possible as it was only after the second hemorrhage that pain occurred, and this symptom is never absent "except in cases which run a rapid course" (Da Costa.) Dr. Nancrede related the case of a "bleeder," then under his care, a *female* infant only 18 months old, where death was imminent from epistaxis. Dr. Dunn made some remarks on the general subject of hæmophilia and its treatment.

C. B. NANCREDE, Sec.

Clinical Reports from Private Practice.

Article XXIX.

Lupus Tuberculosis Seu Nodosus. By G. A. Voght, M. D., Freidheim, Cape Gerardeau Co. Mo.

Mr. G.—a farmer, 48 yeass of age, and of healthy constitution, met with a little accident on the 10th, of December, 1882. The stove-pipe fell down on his nose and lacerated the skin just in the middle of the bridge. It bled for some time, notwithstanding that he applied cold water compressions and later on, court plaster.

I saw the patient first, on the 10th of January 1883, when he came to me complaining a severe pain in his face and nose. The place where the skin had been wounded looked very red and swollen, oozing a yellowish ichorous, irritating fluid, the red swelling extended from the nose under both eyes, over half the cheeks, his appetite was poor, and his breath offensive, tongue heavily coated. Diagnosis: Erysipelas. I gave him internally a purgative, and applied collodium iodatum.

On the 15th of January my patient returned, not being relieved at all, but his pain was aggravated, also the swelling; his nose and face was puffed up, especially under the eyes, and I was astonished to find in his nose a tubercle the size of a large pea, growing out the place where the skin had been wounded.

I applied a solution of arg. nitr. (℈ i. to ʒ i.) with a hair pencil and gave him four powders, each containing, gr. ii. calomel and ℈i. pulv. jalap, to take one morning and evening. The next day cauterization was repeated, but tubercle increased notwithstanding.

Did not come before the 18th, on account of great pain. Could not rest at night. On this day, the 18th, the appearance of his nose and face was very bad; indeed! the tubercle had been growing so fast, that it was the size of a very large strawberry, so much so, that he himself, lookingin the mirror, observed, that a a better likeness of a strawberry could not be had; the edges

around this tubercle were somewhateverted and ragged, discharging so much irritating fluid that it ran down his nose all the time, so that he was compelled to carry some loose cotton in his handkerchief all the time for absorption. Nose and cheeks œdematous and very red. I now came to the conclusion, that I had to deal, not with erysipelas, but with a kind of lupus.

I never had seen a case of lupus in its first stage before, but have seen many cases, fully developed, in germany, where this disease prevails more than in this country I think.

According to my altered diagnosis I gave Mr. G. a mixture containing:

℞ gr. ii. Bicloride of Mercury
℥ i. Kal. iodat.
℥ iss. Solut. arsen. brómat.
[prepared according to Prof. Bauer's prescription, published in the *Clinical Record.*]
℥ ii. Aq. destoll, and
℥ iv. Ol. Morrhuæ.

One teaspoonful three times a day after eating, increasing by and by to a tablespoonful till a slight salivation had been produced.

Externally I used nitrate of silver in sticks, sharply pointed, thrusted down perpendicularly and horizontally through the whole portion of the tubercle, according to Prof. Hebra.

To reduce the œdematous swelling of the cheeks and other parts of the nose, I applied Gossypium zodatum covered by another layer of cotton and fastened by a bandage around the head. If I had been in the possesion of a galvano-cautery apparatus I would rather have preferred that on account of the short duration and the minimum of pain it produces.

After this thorough cauterization my patient suffered so much that he was bound to lay down for a few days, and did not like to have it repeated.

On the 22nd, I paid him a visit, and found the greatest part of the tubercle gone, the wound looked very ugly. I applied Arg. nitr. again and dressed as before, much to his dislike.

Two days later he began to spit, and the dose of medicine was therefore lessened; swelling and redness of the face entirely gone, tubercle nearly gone.

After the application of Arg. nitr. had been twice repeated, I gave him a dressing ℥ i. glycerine ℈ i. carbol. acid cryst and by the first week of February his nose appeared well, only showing

some redness and a small deep cicatrix where the tubercle had been. He continues to take the same medicine yet.

Prof. Hamilton says, lupus may be caused by an injury of the nose in a man, otherwise perfectly healthy (so in my patient —no syhpilis at all) occurring most in persons past the middle of life, he never found any local or constitutional remedies useful.

Dr. Druitt describes only two varieties of lupus, L. not exedens and L. exedens; the latter beginning as a small vascular wart or a smooth red shining tubercular swelling of the cutis vera, he says, It is not cancerous; gives chloride of arsenic, cod liver oil internally, externally, the strongest caustics, acid nitrate of mercury, Vienna paste, chloride of zinc or arsenic.

Prof. Gross has the same division; his experience does not warrant the conclusion, that the origin of this disease has any relation with scrofula. He prefers division of lupus exedens in the first stage, to cauterization; but concludes, that despite, however, all that can be done, the disease generally returns sooner or later, and eventually proves fatal. He counts lupus exendens among the cancerous diseases.

Dr. Neumann of Vienna divides lupus in two main varieties, 1. Lupus vulgaris. 2. Lupus erythematous. By the name of L. vulgaris he designates a cellular infiltration of the cutis, which does not tend to tissue formation, but after a certain time leads to a contraction or ulceration of the skin by a process of fatty degeneration and molecular destruction. This disease appears in the form of:

1. Brownish red spots (lupus maonlosus).

2. Papules or nodules elevated above the skin, also of brownish red color, in size from that of a pea to a hazel-nut, (lupus tuberculosis seu nodosus).

3. Filtrations; the skin appearing of a color similar to the preceding varieties, but covered with lamellæ of epidermis (lupus exfoliatious).

4. Atonic ulcers, resulting from a softening of the infiltrated tissues (lupus exulcerous).

5. New formations rising above the skin and evolving large portions (lupus hypertrophious).

6. Large ulcers extending perip herally (lupus serpiginosus).

2. Lupus erythematous is a cellular infiltration of the tissue of the corium with an intense affection of the sebaceous glands, with the formation of comedones and with a very tedious but never very deep ulceration.

Dr. L. Bulkley of New York says in a note to this article; "The treatment of lupus must be decided—temporizing is fatal.

According to Copeland my case was undoubtedly lupus tuberculosis superfacialis.

Correspondence.

Article XXX.

Editor Journal:—

I received, a few days ago, through the kindness of Dr. Edw, Borck, of St. Louis, several of his interesting pamphlets which are, in the main, accurate and instructive. There is one point, however, in his article on the treatment of spinal disease, to which I must take exception. Dr. Borck says, "I have seen it (the jacket) applied by the author, and I know it (the method) is correct for I have studied it carefully before I ever attempted to use it." He further states, "If the deformity is not in the cervical vertebræ, but between the seventh and first dorsal vertebræ, you may apply the jacket in the same way and in addition let the bandage run in a figure eight manner over the shoulders thus—*without the head rest.*"

I can hardly believe that Dr. Borck has ever seen the author apply a jacket, for, in the first place, Dr. Sayre always applies the jury-mast where the disease is in the cervical or dorsal vertebræ. The object of the jury-mast is to afford a constant elastic extension and thus relieve the diseased vertebræ from the weight of the head and yet not interfere with the normal motions.

Secondly, Dr. Sayre *never* uses a figure of eight bandage over the shoulders. This is the erronous idea involved in many of the iron braces used for correcting deformities of the spine. He has always condemned this principle as unscientific and positively injurious for the reason that it prevents proper extension of the vertebræ, interferes with the growth of the patient and tends to increase the deformity.

In discussing rotary lateral curvature, Dr. Borck further, states, "In regard to its treatment, I prefer a movable jacket."

For the past three or four years, Dr. Sayre has constantly used the open or movable plaster of paris jacket, in this affection and has found it much superior to felt, silicate, or any other material. The method of application and the advantages of the

open or movable plaster of paris jacket, will be found in the Second Edition of Dr. Sayre's work on Orthopædic Surgery which is now in press.

Very respectfully yours,
ROBERT TAYLOR, M. D.,
Assistant to PROF. LEWIS A. SAYRE, M. D.

EDITOR JOURNAL:—

Please give space to the following, in reply to the above communication of Dr. Lewis a Sayre's Assistant:

The communication is uncalled for.

The quotations of Dr. Taylor are not complete, therefore not correct. See ST. LOUIS MEDICAL AND SURGICAL JOURNAL, Jan., 1883, page 31 begin at 7th line from above. And reprint,* page 13, 3d line from below, up to 8th line on page 14. It explains itself thoroughly.

Dr. Edw. Borck did not say in his lecture, that he saw Dr. Sayre apply the figure of eight bandage, nor that Dr. Sayre uses the same. No such inference can be drawn from the pamphlet, if carefully read. Neither did Dr. Borck say that he uses the same, but said that it *may* be applied in addition, etc. etc.

Dr. Borck said he saw Dr. Sayre apply the plaster jacket, and emphatically says so now. Dr. Taylor is at liberty to believe what he pleases.

But for the consolation of Dr. Sayre's assistant, I will say, that the profession has the utmost confidence in Dr. Borck, and of all who know him personally, no one would doubt for a moment that what he writes or says.

Dr. Borck said nothing at all about Dr. Sayre's jacket nor any one else's apparatus in lateral curvature of the spine.

Dr. Borck said, "I prefer in lateral curvature, the movable jacket, and like the felt jacket the best."

There can be no objection to what one prefers or what one likes. No one is supposed to know what is to be printed in the

*See page 14, reprint, which will be sent gratis, upon application, to any one interested.

future, or what may be in a press. But one may know, *and know it well*, what has been published.

I have carefully read the above communication of Dr. Sayre's assistant, handed to me through your kindness, but I utterly failed to see where the point comes in, except it may be this: that we are informed thereby that Dr. Sayre's Second Edition is in press, and that we may therin find that Dr. Sayre has made some changes.

Very respectfully yours,

H. MARKS, M. D.,

Dem. of Anat. and Asst. to PROF. EDW. BORCK.

Books and Pamphlets Received.

ARTICLE XXXI.

Annual Report of the St. Louis Public School Library, 1882–83. (St. Louis: Press of Slawson & Co., 1883.)

The Rights of the Insane. By C. H. Hughes, M. D., of St. Louis. (Reprinted from the *Alienist and Neurologist*, April, 1883.

The Therapeutic value of Cephalic and Spinal Electrization. By C. H. Hughes, M. D., of St. Louis. (Reprinted from the *Alienist and Neurologist*, Jan., 1883.

Experience of an Opium Eater during the Withdrawal of the Drug. Recorded by C. H. Hughes, M. D., of St. Louis. (Reprinted from the *Alienist and Neurologist*, Jan., 1883.

A Study of the Malformations, Variations and Anomalies of the Circulatory Apparatus in Man, with a Brief Consideration of some of the Principles Governing their Production. By Randoph Winslow, M. D., Baltimord, Md. (Reprinted from the *Annals of Anatomy and Surgery*, Nov. and Dec., 1882, and Jan., Feb. and March, 1883. (Brooklyn, N. Y.: Annals of anatomy and Surgery, 1883.)

Ninth Annual Report of the Superintendent of the Cincinnati Sanitarium, for the Year ending Nov. 30, 1882. (Cinninnati, 1883.)

Annual Announcement of the Cooper Medical College, Successor to the Medical College of the Pacific, San Francisco, Session of 1883. (San Francisco: Alta California Printing House, 529, California St., 1883.)

Illinois State Board of Health. Preventable Disease Circulars, Diphtheria, Scarlet Fever and Typhoid Fever.

The College of Physicians and Surgeons of Chicago. Announcement of the Spring Session of Lectures and Practitioners' Course, 1883. (Chicago: A. G. Newell, Printer, 71 & 73 Randolph St.)

Ctitis Medica Purulenta. By Dudley S. Reynolds, M. D., Louisville, Ky. (Reprinted from the Phila. *Medical and Surgical Reporter*, Oct. 21, 1882.)

Our Country; Its Present and Its Future Prosperity.

The Dangers of Impure Ice. Report to the Sanitary Protection Association at Newport, R. I., upon the Purity of the Ice Supply from Almay's Pond. Reprint from *The Sanitarian*, for May, 1882.)

On the Treatment of Gunshot-Wounds of the Abdomen, in Relation to Modern Peritoneal Surgery. By J. Marion Sims, M. D., LL. D. (London: Office of the British Medical Association, 161 a Strand, 1882.)

Address Delivered on the Occasion of the Dedication of Cooper Medical College Building. By Levi C. Lane, A. M., M. D., (Jefferson and Berlin) Professor of Surgery, and Member of the Royal College of Surgeons, London; and by Edward R. Taylor. (San Francisco: A. J. Bancroft & Co., Printers, 1882.)

Book Reviews.

Article XXXII.

A Treatise on Therapeutics, Comprising Materia Medica and Toxicology, with Especial Reference to the Application of the Physiological Actions of Drugs to Clinical Medicine. By H. C. Wood, Jr., M. D., Professor of Materia Medica and Therapeutics, and Clinical Professor of Diseases of the Nervous System, in the University of Pennsylvania, etc. Fourth Edition, Revised and Enlarged. 8vo., pp. 736. (Philadelphia: J. B. Lippincott & Co., 1882.) $6.00

The Author states in his preface (which is five lines in length) to this edition, that he has thoroughly revised the work with the aid of the most recent literature.

This work contains what is known of the action of remedies. The author has gathered his information from the well-known authors who have contributed their views to foreign and domestic journals. His own views concerning the physical action of remedies are freely interspersed through the work; this enhances the value of the book, proving that he is not merely a compiler, but an observer. Of course, it is not expected that he could have made observations on every remedy or subject mentioned, but he has done so with by far the greater majority of them. The first edition of this work appeared in 1875. The frequent editions show that the work has been favorably received by the profession.

Manual of Gynæcology. By D. Berry Hart, M. D., F. R. C. P. E., Lecturer on Midwifery and Diseases of Women, School of Medicine, Edinburgh, etc., and A. H. Barbour, M. A., B. Sc., M. B., Assistant to the Professor of Midwifery, University of Edinburgh, late President of the Royal Med. Soc. Vol. I., 8vo., pp. 313. (Wm. Wood & Co., 56 & 58 Lafayette Place, N. Y. 1883.)

This is the January Volume of Wood's Library of Standard Medical Authors. The work is dedicated to Dr. A. R. Simpson, the nephew of the great Sir Jas. Y. Simpson, of Edinburgh, Scotland. In writing the manual, the authors have kept before

their eyes, the great principles of anatomy, physiology and pathology of the pelvic organs, knowing this to be the foundation of a thorough understanding of the subject.

The work is very freely illustrated, having 192 illustrations and 8 colored plates. Each chapter is commenced by giving the literature on the subject, which embraces nearly all known contributors in Europe and this country.

ELECTRICITY IN MEDICINE AND SURGERY. By G. C. PITZER, M. D. First Edition. 8vo., pp. 83. (St. Louis, Mo., 1883.) Price $1.00

The author states in his preface that the object of his work is to furnish the medical student with a book containing the principal practical facts, embraced in the subject of electricity and electro-therapeutics. He has aimed to make everything as plain as possible and we think he has succeeded in his effort. After relating in general the appreciation of electricity and its effects, he has re-illustrated the subject by giving the treatment of quite a number of cases. In concluding his work he has informed beginners that they should remember that this agent will not cure everything. For a small work it will no doubt well suit many practitioners.

DISEASES OF THE LIVER. With and Without Jaundice, with the Special Application of Physiological Chemistry to their Diagnosis and Treatment. By GEORGE HARLEY, M. D., F. R. S. Illustrated with Colored Plates and Wood Engravings. 8vo., pp. 751. (Phila.: P. Blakiston Son & Co., 1883). Price $5.00

The first chapter takes into consideration the value of physiological chemistry in the diagnosis and treatment of hepatic diseases. The style of the language is forcible and is well calculated to carry conviction and entice the reader to a close study of the author's work. The chemistry, physics, etc. discussed in the second chapter. The consideration of jaundice is found in the third chapter. In this chapter we were a little surprised to see the perpetuation of old terms. This is also noticed in the sixth chapter, in the heading of which is found our old and ambiguous term, "biliousness." The author's attempt at a definition of this term is really good, but we think he should have left the term out, as it is quite confusing.

It is seldom that we see a work that is written in such a positive style, but Dr. Harley's method, instead of being disagreeable, is really very attractive. Generalities never strike one as forcibly nor as favorably as the positive assertions of one's own experience. No one can peruse this book, even for a few moments, without seeing that it is very systematic and exhaustive.

HOW WE OUGHT TO LIVE. A Practical Guide Written in Plain Intelligent Language, for the Preservation of Health and the Advancement of Longevity, designed to enable all so to live that they may reach Old Age, in Health and Comfort. By J. F. EDWARDS, A. M., M. D. 8vo., pp. 636. (St. Louis: John Burns, Publisher, 1883.) Price $3.00

The first chapter speaks of the general rules for the prolongation of life. In this chapter he has endeavored to answer the question, "What is Life?" The second chapter takes into consideration the duties of mothers in the care of their infants. The third chapter is devoted to the care of children at home. The fourth chapter, how they ought to live at school. Fifth chapter, the construction of the house drainage. The sixth chapter, to ventilation and air respiration. How we ought to work, eat, exercise, bathe, sleep and dress, are devoted to the other chapters. The thirteenth and fourteenth chapters give the reasons why we should not use tobacco or alcohol. The rest of the work, which occupies about 300 additional pages, is devoted to the observance of the laws of health in general.

We heartily commend the work.

LEGAL MEDICINE. By CHARLES MEYMOTT LIDY, M. B., F. C. S. 8vo., pp. 314. (New York: William Wood & Co., 1883. St. Louis: Hugh R. Hildreth Publishing Co.)

This work is in two volumes and is the Nov. and Dec. numbers for 1882 of Wood's Library of standard Medical Authors. There are yet remaining two volumes which will appear in the Oct. and Nov. numbers for 1883 of the Library. When a physician takes the witness stand, it becomes him to be well informed as to the requirements of a court of justice in giving testimony. It is one of the most common things for a lawyer to so confuse a physician that he will be apt to contradict himself, especially if he is examined as an expert. For these reasons, a work on this subject is well timed, and were we expecting to be placed on the witness stand, we are certain that a perusal of the volumes would greatly assist us in our ordeal.

WATER-ANALYSIS. A Handbook for Water Drinkers. By G. L. AUSTIN, M. D. 16mo. pp. 48. (Boston: Lee & Shephard, Publishers. New York: Charles T. Dellingham. 1883.

In the preparation of this little book, the author has had in view, the object of placing in the hands of persons who are not professional chemists, a ready method of determining water-analysis, to the extent necessary to afford an idea as regards its wholesomeness or unwholesomeness for drinking purposes. It is

a plainly written little work and well worth the price asked.

A TREATISE OF HUMANE PHYSIOLOGY, Designed for the Use of Students and Practitioners of Medicine. By J. C. DALTON, M. D. Seventh Edition with 252 Illustrations. 8vo., pp. 732. (Phila.: H. C. Lea's Son & Co., 1883.)

The whole Medical world is well acquainted with Dalton's Physiology. The author states in his preface, that since the last edition, in nearly all departments of medicine, advances in physiological science has been such as to make a revision of the greater part of the book desirable. The most important alterations that we notice, is in the section on physiological chemistry, and they relate to the classification of the albumenoid substances and particularly to the ferments. Extended consideration in the departments of the nervous system, has been given to the localization of function in special parts of the cerebro-spinal axis. As a general rule, topics which are uncertain or incomplete are treated with comparative brevity.

The almost universal adoption of the work as a text-book is an evidence of its popularity.

THE MEDICAL DIGEST, or Busy-Practitioner's Vade-Mecum. Being a Means of Readily acquiring Information upon the Principal Contributions to Medical Science during the last Thirty-five Years. By RICHARD NEALE, M. D., London, Member of the Dutch Medical Society of Batavia, Java. Second Edition. 8vo., pp. 720. (London: Ledger, Smith & Co., St. Mary Axa, 1882.)

This is a very peculiar book and requires to be studied to enable one to fully understand it. As its name implies, it is a medical digest of good references, which will aid the practitioner in thoroughly informing himself of what has been written on certain subjects, and where he can find it. The book has fully 90,000 distinct entries, and contains the mention of every subject connected with medicine, surgery, anatomy, chemistry, materia medica, etc. The book has been well received by some of the most prominent men of Europe. The sentiment of their expressions concerning it, is that Dr. Neale's Digest is the best thing of the kind that has been presented to the profession for many years. We heartily commend the book to every medical man who professes to be a student.

ANNUAL REPORT OF THE SUPERVISING SURGEON-GENERAL of the Marine Hospital Service of the United States for the Fiscal Year 1882. 8vo., pp. 304. (Washington: Government Printing Office, 1882.)

Probably no annual report that has been issued from the Supervising Surgeon-General of the Marine Hospital Service, has been as interesting as the present one. It shows a great deal of original research and painstaking. Besides the usual tables containing the statistics of diseases and surgical operations of all kinds, Surgeon Sawtelle, of this city, has contributed a number of very interesting cases of Rheumatic Effusions in Joints, treated by aspiration. His success is really remarkable. The seventeenth case was received in the hospital July 31, 1882, and had 35 c. c .drawn from the right knee joint and 25 c. c. from the left knee joint by an aspirator, with immediate relief. No anæsthetic was used. The patient returned to duty entirely recovered, Aug. 4, 1882.

Another very interesting article is given by Surgeon Banks, on Aneurismal Varix. One of his cases, which is illustrated, is truly remarkable, there being a direct connection between the external iliac vein and the femoral artery. The communication between the artery and vein, was about three-sixteenth of an inch in diameter and somewhat oval in shape.

From the 125th page to the 260th is full of very interesting surgical and medical cases. It is a great pity that these cases have not been reported in some medical journal, as in this way they would have been spread before the profession, not only without doing the least harm to the marine hospital service, but doing both itself and the profession a great good. As it is, but few journals will publish these cases, and those engaged in the marine service may not receive due credit. We propose, at a future time, to publish a number of these cases in the JOURNAL.

In the appendix of this interesting report, we see an article from the pen of our former townsman, Surgeon Walter Wyman, on the "Hygiene of Steamboats." No one can read this article of Dr. Wyman's without seeing the great need of a law compelling steamboat owners to give proper shelter to their deckhands. We are pleased to know that our representative in Washington from this place, Dr. McLean, drew the attention of Congress to the outrages almost continuously perpetrated on the Mississippi and Ohio Rivers. It is high time that these unprotected and ignorant but really important helps should be so sheltered, as to be fully able to perform the duties required of them, without endangering their lives. Their being easily imposed upon is due to the fact that they are, as a general thing, a very ignorant and vicious class of men, but we know that this vile treatment will tend to make them still more vicious and make them still less reliable as workmen.

We hope that the discussion of this subject will not cease until the proper laws are enacted for their protection.

THE DISEASES OF WOMEN. Their Pathology, Diagnosis and Treatment, Including the Diagnosis of Pregnancy. By GRAILY HEWITT, M. D., London, F. R. C. P., Prof. of Midwifery and Diseases of Women, University College, London, etc. Fourth American, from the last Revised and Enlarged London Edition, with 132 Illustrations. Two Parts in one Volume. 8vo., pp. 751. (Phila.: P. Blakiston, Son & Co., 1882.) For sale by Frank River, 204 N. 5th St., St. Louis. Price $1.50

This edition is substantially a new book. The First Edition was mainly a summary and a criticism of the then existing knowledge on the subject of the diseases of women; the next edition contained numerous illustrations of the author's own observations, and what he termed as an improved system of uterine pathology. The present edition is still more enlarged and contains generalizations on the important questions which have forced themselves on the author's attention in the course of his experience. The author thinks that the mechanical system of uterine pathology now put forward, is not a speculative theory. He says, "If I had published it when I first conceived it, some years ago, it would have been a speculation only; but the system as now enunciated commends itself to my judgement as true, inasmuch as I have found it in conformity with daily observation for five or six years past. These views on the subject, are, therefore, not novel so far as I am personally concerned, but I have not until the present time, felt myself warranted in giving so decided a public expression to them."

There are 132 illustrations. The whole work appears to have been the product of a great deal of labor, from a man who has had enough experience to be decided in his expressions.

News Items.

Article XXXIII.

A Chair of Laryngology has been established in the Royal University of Rome, and Dr. Zawerthal has been appointed to fill it.—[*Medical Review.*

An exchange says that by actual count "there passed a certain point on an ordinary day, one hundred and five men, boys and a mule; one hundred of these were engaged in smoking; five of the men and the mule were not. Clearly the mule was on the exclusive aristocratic side of the question."—[*Detroit Lancet.*

The Children of Women Suffragists.—In a list recently given of the children of twelve leading woman suffragists, it was shown that there was a remarkable preponderance of daughters. Among the forty three children thirty two were girls.—[*Medical Record.*

The Second German Congress for Internal Medicine meets at Wiesbaden, April 17 to 20, 1883.—[*Medical Record.*

Osculation as a Therapeutic Measure.—St. Louis has two pretty female homœopathists. Their first patient was a man who said he had the neuralgia from too much kissing, and wanted to be treated on homœopathic principles.—[*Gaillard's Medical Journal.*

We have a physician (?) right here in Detroit who avers that angina pectoris is an excellent remedy in consumption. He was driven here by the salutary Illinois Medical law. He is of kin with the Missouri doctor who cures catarrh at one sitting, and in proof of his success he guarantees to "remove the catarrh and place it on a saucer."—[*Medical Age.*

Grant on Homœopathy.—U. S. Grant, when asked to sign the petition in favor of making all physicians equal before the

law in the Government service, said he would "give homœopaths no encouragement directly or indirectly!"—[*Medical Record.*

THE COLDEST TOWN IN THE WORLD.—The coldest inhabited town in the world is, according to *L'Union Médicale*, not Irkoutsk, as has been formerly believed, but Verchojansk, in Siberia. In this place the mean temperature during the month of January was—43° F., in February,—56° F., in March,—37°. Once the thermometer recorded—82.4° F.—[*Med. and Sur. Reporter.*

THE KENTUCKY STATE MEDICAL SOCIETY.—The Kentucky State medical Society will meet in Louisville in April under the presidency of Dr. A. D. Price. Dr. Coleman Rogers is chairman of the Committee of Arrangements.—[*Med. and Sur. Reporter.*

THE CHANCE OF A EUROPEAN CHOLERA EPIDEMIC.—Already there is a moderate prevalence of cholera in Arabia, and its extension to Europe can be prevented, says a recent writer in the "Revue Médicale," only by stringent action by the Turkish government and by the British in Egypt.—[*New York Med. Journal.*

THE mal-appreciation of the services of medical men is a sufficiently familiar subject of remark. It is well illustrated in the amounts paid by different steamship lines to the medical officers, which are said to be wholly inadequate to the service and responsibility of the position. It is stated that on one line, which carries an immense number of passengers, he receives smaller compensation than the steward of the vessel, and is paid the same *wages* as the fifth enjineer, or the steerage steward.—[*College and Clinical Record.*

A FEMALE CRANK.—Mlle. Bernard, the daughter of Claude Bernard, has been fined at Boulogne-sur-Seine, on complaint of her neighbors, for converting her courtyard, garden, parlour and bedroom, into a kennel for destitute dogs. She felt some reparation was due the canine race for the miseries inflicted on it by her father's vivisections.—[*Louisville Medical News.*

EXTERNAL HEMORRHOIDES.—Dr. Blascho, of Berlin, reccomends compresses soaked in a one-per-cent solution of ergotin, to

be applied hourly. Dr. Pasqua, of Florence gives the following ointment as infallable: Extract of Belladonna, gr. v., iodoform, aceate of lead, āā gr. i: petrolium jelly, ℥ i. Make into an ointment, to be applied three or four times a day.—[*Druggist's Cir.*

DURING the year 1882 the St. Louis Med. Col. Dispensary treated and furnished medicine gratis to 4631 indigent persons. This number not including the Gynæcological clinic, Dental Clinic, nor the persons vaccinated.

ALTERATIONS IN CANE SUGAR IN THE HUMAN STOMACH.—The following is from the *London Practitioner*: Professor Leube finds that the gastric juice secreted both by healthy human stomachs, and also by certain diseased ones, has the power of converting cane sugar into grape sugar, or at least into a sugar having the power of reducing copper. This grape sugar after its formation is absorbed by the healthy stomach, but not by the stomach affected with dilatation. The conversion of cane into grape sugar is chiefly effected by the gastric juice, the action of the mucus being apparently unimportant.—[*Virchow's Archiv.* Vol. 88.

DOCTORS OF MEDICAL SCIENCE.—The French Minister of Public Instruction has recently issued a circular to the doctors of the medical faculties and schools, requesting them to seek the advice of their various councils as to whether it would be desirable to create a new degree superior to that of Doctor of Medicine, to be termed Docteur dès Sciences Médicale. While leaving the discussion on the subject free and open to the profession and academic counsels, and desiring their opinion on the matter, the Minister observes that there are three points to be especially considered: 1. The utility of having above the doctorate of medicine, which is especially a professional degree, a superior degree indicating more complete and more scientific acquisitions, and more personal and more original studies. 2. What exingencies should be imposed on the candidates for the new doctorate beyond those already required for the doctorate of medicine? 3. In what way are the tests of the qualifications of the candidates to be settled?—[*Med. and Surg. Reporter.*

A NEW USE FOR A MOTHER IN-LAW—FOR THE BENEFIT OF SCIENCE.—At the office of Leitch Bros.' steam printing works,

Cincinnati, are the remains of the mother-in-law of Mr. A. L. Leitch, one of the member of the firm, in a thoroughly petrified condition. The woman has been dead about twenty-five years. The body, according to the statement of a prominent physician, is in a state of adipocere. Mr. Leitch has been keeping it in his office since its arrival in Cincinnati, undetermined what to do with it, but his brother informed a reporter that they are contemplating placing it on public exhibition, *for the benefit of science.*—[*Gaillard Journal.*

THE latest information from Southwestern Virginia reports the ravages of small-pox as extremely alarming. Neither the people nor the physicians in that section have any adequate knowledge of the disease to enable them to deal with it successfully. They are consequently terror-stricken by its appearance and refuse to venture near any houses in which there is a small-pox patient.—[*Medical and Surgical Reporter.*

MARK Twain says there is something very fascinating about science, it gives you such wholesale returns of conjecture for such trifling investments of facts.—[*Philadelphia Medical Times.*

AN EPIDEMIC OF SYPHILIS.—An epidemic of syphilis has recently occurred in Sheffield, England, through the agency of a syphilitic midwife, who attended a number of cases of delivery in married women, all of whom contracted the disease. The woman has been committed for trial, charged with having "wilfully and maliciously caused grievous bodily harm" to the complainants.—[*Medical and Surgical Reporter.*

WEIGHT OF WOMEN'S CLOTHES.—In relation to rational dress, the dress reformers have, we are glad to see, been advised to give attention to the absurd fashion now prevailing as regards women's dress, and especially at this time of the year, when, in addition to their ordinary clothes, ladies cover themselves with heavy mantles of fur, &c. Many women complain of feeling tired after a short walk, whilst they are really carrying a weight which would soon tire a strong man. Their waists are encircled with a belt or hoop, to which a load heavier than a felon' chains is attached, and the shoulders and chest are compressed by and additional burden. Breathing is laboriously performed, and the

contents of the trunk and pelvis are thrust down with a force which if represented in pounds would occasion considerable surprise. It would be a matter of great interest if medical men would ask their female patients to ascertain precisely the total weight of the clothes they wear in-doors and out.—[*London Medical Record.*

THE TRI STATE MEDICAL SOCIETY.—One of the most important medical events of the year will be the meeting of the Tri State Medical Society at Mineapolis in September. Already the work for this convention is far advanced, owing to the almost perfect organization of the Society.

Some years ago the Society found that the hospitality of the citizens in the places of meeting to some extent interfered with its proper work, and that long papers crowded out shorter and better ones. It was then resolved that the Society accept of no banquets etc. and that all papers be limited to twenty-five minutes.

From that time the increase in interest and attendance was marked, and now during each of the three days of meeting, three sessions are held, fully occupied with short practical papers and discussions, the authors having been previously selected by the committee on programme.

The "Tri State" is in exact harmony with the different state and other local societies, leaving to them all matters of legislation and ethics, and requiring that its members be also members in good standing of one or more of these.

The territory embraced is Indiana, Kentucky and Illinois, to which Cincinnati and St. Louis have been added. At the last meeting there were many visitors from other states.

The "Tri State" holds front rank in reputation in both Europe and America as a working society, and work has been the secret of its success.

For further information address any of the officers. Dr. Wm. Porter, St. Louis, *President.*; Dr. G. W. Burton, Mitchell, Ind., *Secretary.*; Dr. F. W. Beard, Vincennes, Ind., *Treasurer.*; Dr. T. B. Harvey, Indianapolis, *Chairman of Committee of Arrangements*; Dr. T. L. Thompson, Indianapolis, *Chairman of Committee on Programme.*

Respectfully,

G. W. Burton, Sec.

MYOSITIS OSSIFICANS.—At a recent meeting of the Vienna Medical Society Professor Podrazki exhibited a soldier affected with the rare condition which has been termed myositis ossificans. Four weeks previously the man had applied for treatment on account of an intense inflammation of the muscles on the front of the right upper arm, apparently set up by severe gymnastic exercise. The muscles were large, hard, and uneven and the elbow-joint was fixed in flexion. The hardness was removed, and some increased mobility was obtained, by massage and the application of cold. At the end of two weeks a hard, round, movable tumor developed in the flexor of the elbow, which was evidently due to an ossification of the brachialis anticus. At first it was movable, the upper part appeared to be cartilaginous, and it was evidently not connected with the periosteum. Podrazki has seen, in the course of nineteen years two cases in the practice of Pitha quite similar to this in their characters. In those two cases neither iodide of potassium, nor any other treatment adoped, had any influence. In a discussion which followed, Professor Weinlechner stated that he had twice seen similar small spots of ossification in the muscles on the front of the leg, due, in each case, to a traumatic cause. Kundrat expressed the opinion that some supposed exostoses on the thigh proceed from muscles. Their from and seat correspond to certain muscles. Their greater frequency in men, and especially in muscular individuals, suggests that their origin is traumatic. They constantly become adherent to bone in the course of their growth, and hence are commonly thought to be primary exostoses.—[*The Practitioner.*

BACTERIA IN GONORRHŒA.—At the Berlin Charity Medical Society, Dr. Leistikow read a paper, which is reported in the *Berliner Wochenschrift*, No. 32, detailing the results of his researches on gonorrhœal bacteria, first discovered by Neisser. They are found in the pus-cells, this locality distinguishing them from other bacteria. They occur *only* in the gonorrhœal affections of the urethra and conjunctive, and are never found in urethral or conjunctival secretions arising from other causes. In the early inflammatory stage they were found proportionately in smaller numbers than in the gleety stage, when they were always present. Inoculations of gonorrhœal pus from the urethra and conjunctive have hitherto given only negative results. The

various remedies used in gonorrhœa, such as zinc, lead, tannic or carbolic acids, after a few injections dispersed all the bacteria as did the copaiba balsam when taken internally. Corrosive sublimate also prevented the developement of bacteria, and Dr. Leistikow especially recommends it as the best means of treatment of ghonorrhœa, employed in an exceedingly weak solution (10 to 20,000 or 30,000). With any of these injections we should persevere for some days after disappearance of bacteria, or they will return again. [*Petersb. Med. Woch.*, Oct. 28. 1882.

THE bill to create a State Board of Health, as published in the Index for July, has been introduced in the House, and referred to a special committee, composed exclusively of physicians. A favorable report is expected at an early day. There are strong hopes for its passage at an early day.—*Med. Index Kansas.*

PROFESSOR TYNDALL is lecturing at the Royal Institution, London, on "Light and the Eye."

THE AUTOPSY ON GAMBETTA.—Further details of the autopsy on Gambetta confirm the view of the nature of his troubles which we based on the earlier and somewhat incoherent descriptions. The physicians in charge report "he succumbed to a perityphlitis, complicated by a pericolitis, to which was added a slight peritonitis manifested during his last moments. Any surgical intervention would have been useless. It could have had no other effect than to abridge his life." The autopsy was conducted by Dr. Brouarbel and Cornil, and in the presence of Drs. Charcot, Lannelongue, Gille, Fienzal, Sirèdey, Trélat, Verneuil, Liouville, Mathias Duval, Laborde, Guerdat, and Gibier, who signed the report, as did also Paul Bert, who fainted during the operation.

Vol. XLIV. APRIL, 1883. No. 4

Original Contributions.

Article XXXIV.

A Case of Myopia Complicated with Nystagmus. By E. Benkendorf, M. D., of St. Louis.

The following description is that of a case of nystagmus, having come under my observation Feb. 22, 1883. The patient is a girl about thirteen years of age. She has had purulent ophthalmia, this having set in three days after birth. The left eye recovered without any permanent anatomical alteration. The right eye, on the contrary, had become staphylomatous and this deformity had been increasing until a year ago, when the eyeball became suddenly atrophied. She then became near-sighted in the left eye, to an increasing degree, and came to me to receive an order for the proper kind of spectacles. At the same time there was a noticeable nystagmus of the left eye and of the atrophied eyeball of the right eye. Pain, there was none in either the left or right eyeball and had never been, to her recollection.

The nystagmus consisted in lateral or cillatory motions of the left eye and stump of the right one, and was only momentarily arrested when the patient directed her eye in a determined manner upon a fixed object. The motions of the pupil of the left eye were normal and the patient stated that she could see better on a bright day and also at night by artificial light. I may besides, state here, that there are no specks on the cornea of the left eye, nor any cataract in the same. The color of the patient's eye is black.

It seems probable that the nystagmus of both eyeballs and the myopia of the left eye depend on the atrophy of the right eyeball. We do not suppose, however, that ciliary nerve irritation is the immediate cause of the nystagmus and myopia. In proof of this we have to reflect upon the sudden atrophy of the eyeball, which would point to disease of the optic nerve and likely that of the sympathetic. This seems to be corroberated by the fact, that the patient sees better by artificial bright light and warrants the exclusion of ciliary nerve irritation. We fee

inclined to ascribe the atrophy of the right eyeball to absorption of pus from the cornea, and that this infection, inflamed and then paralyzed the optic and sympathetic nerves. It took, of course, several years to perfect these pathological processes.

TREATMENT.—Enucleation of the atrophied right eye seems to be the rational indication for treatment. Patient refused to submit to this operation and desired to get the advice of other medical men.

PROGNOSIS.—The success of enucleation cannot be determined beforehand because the condition of the papilla of the optic nerve cannot be ascertained inasmuch as the ophthalmascope can here be of no use.

ARTICLE XXXV.

ENCEPHALOID OF HEAD OF HUMERUS AND SURROUNDING STRUCTURES. By D. K. DICKINSON, M. D., LEAD CITY, D. T.

On May 21st, 1882, I was called to see Emma C.——, age twelve, Irish. Previous health always good; large and well developed. Family history good. Upon examination the following symptoms were present: Bowels constipated; pulse 100; temp. 100°; tongue clear; complains of pain in head, back and lower limbs. No history of any previous injury except a severe shock in right arm, from a battery, some three weeks before, which she said made her right arm numb for several days after. As I could see no evidence of any positive disease, I simply ordered a cathartic, followed by a few doses of quinine.

On the 24th, was again called and found the pains no better and of a migratory nature affecting groups of muscles alternately. The temperature was normal, appetite good, and general appearance healthy. Ordered opiates to relieve pain. This condi ion remained the same up to July 5th, when again was recalled and my attention directed to an enlargement of right shoulder which was somewhat swollen, with no redness, pain or tenderness to the touch. Complained of some pain in elbow. Urine very red and scanty; no fever; pulse 100; appetite good;

pains continue in muscles. I certainly was puzzled as to the nature of the case. I requested a consultation, hoping to have more light thrown on the case, but Dr. Connell seemed as much at sea as myself; we concluded to order a general treatment and wait for further developments. From this time on, her general health began to decline and I had to resort to cod liver oil and bark, which soon toned up her system. Temp. still remains normal; urine still scanty. Have to continue opiates to relieve pain, which is yet very severe in body and lower limbs. Her shoulder still continues to increase in size, without discoloration of skin, or showing any tenderness.

On the 15th, noticed that the subcutaneous veins were somewhat enlarged over shoulder and pectoral region. Also found some induration of glands of axilla. There was now a semi-elastic feel to the tumor, not lobulated. Temp. 100°; pulse 100; tongue coated with dark brown line through center. I now satisfied myself that I had a malignant tumor to deal with and requested counsel again. Drs. Joel Houghton and B. B. Kelly were called and after an examination, thought there must be pus in the tumor; this I could not grant, as I had made up my mind that it either was an encephaloid or osteo sarcoma, and consequently would not be likely to contain pus. We determined to aspirate, and found only a drop of dark grumous blood adhering to the needle. We then made an incision about three inches long, down to the bone, which proved to be necrosed. Commencing at the head and extending down the shaft three inches, the shoulder was enlarged about two-thirds more than its fellow. The skin was natural but after getting through this, the handle of the scalpel finished the operation, as the tissues were all soft and broken down, like cerebral matter. I will state the object of making this incision, was for the purpose of securing the neoplastic growth, but after getting down no operation presented itself that promised any relief, as the induration of the glands of the axilla, showed that they were also involed. The oder was that of necrosis and very offensive, the wound was washed out and dressed with antiseptics. We, of course, concluded that it was a helpless case, and ordered paliative treatment accordingly. I remained in charge of the case until the 28th, when the parents thought they would get another doctor who could cure the disease by doctoring the kidneys. I saw her again on the 28th, about two hours before dissolution, I undressed the wound and never

have I experienced such an odor as this case emitted; the wound had not been dressed since my last visit, and consequently was in a very bad condition. She was then comatose and had been so for several hours. Her eyes were puffed and ankles œdematous.

My object in presenting a history of this case is; first, to show the deceptive manner in which it developed; second, its rapid growth and fatal termination.

The enlargement, when first noticed, did not present any of the physical signs of its character; it looked more like a scrofulous abscess, no heat or pain, not lobulated or hard, as these growths usually are when in their infancy. Her general health gave no evidence of the peculiar cachexia that usually accompanies these malignant diseases.

The rapidity of its growth and fatal termination was certainly remarkable, as it is rare for these diseases to run so short a course, generally requiring from three to twelve months before death occurs. Of course, it may be argued, that death occurred from some intercurrent affection, though I hardly think that it could without it being detected, as I was very much interested in the case and consequently gave it very careful attention in connection with two or three other medical gentlemen who were anxious as to diagnosis and result. I was very much disappointed in not being allowed to hold a post-mortem, as I wished to examine the kidneys, which I supposed were not healthy, although I made several examinations of the urine and found it normal so far as specific gravity albumen and reaction was concerned.

Article XXXVI.

Report of a Case of Glio-Sarcoma.* By A. H. Meisenbach, M. D., of St. Louis.

The parents state that at the age of three months, the child fell with its eye, on a sled; nothing particular was noticed until some months afterwards, a friend called their attention to it, and remarked that the child had two kinds of eyes,—that the color was not alike in both.

They took the child to the late Dr. Gebser, at about the age of eighteen months. He kept the child under his notice for some time, having the parents bring the child to his office every ten days, for examination. He had said that, (so parents say) it would be time enough for operative interference, when the child was five years old, as it was too young. This statement must be taken "*cum grono salis,*" for the statements of parents or friends in regard to what a physician said or did, are too often at variance with the real facts. Dr. Gebser, in the mean time, died. After a lapse of time, the parents took the child to Dr. Niehaus, who, as parents said, did and said about as did Dr. Gebser. Dr. Niehaus also dying, there was another lapse of time and neglect of the child.

In July of last year I was called to see the father, for pulmonary trouble. I saw the child, and the parents gave me the facts as already stated. The eye, at this time, was the same size of the other; but the pupil was very large, (obliterated) and it was apparent that vision was impaired. I advised them that it was wrong to neglect the child, and that they should not delay to take it to an oculist. They promised to do so, but as before, they did not do it. About August, the eye became inflamed and the parents took him to an occulist, who advised immediate removal. Attending the father still, I saw the case at this time. The eye was much swollen, chemosis severe, and great tension of the globe. Strange as it seems, the people even now, did not

*Read before the St. Louis Medical Society, Feb. 10, 1883.

heed the advice of the oculist, but put it off until the father should feel better so that he could go to the oculist with it.

Not visiting the father at the house any more, I did not see the child until the last week in October. In the course of time, between August and the latter part of October, the parents state that the eye burst and the boy's sufferings were much relieved. When I saw the child again, in the latter part of October, the eye presented the appearance as shown in photograph No. 1. The protruding tumor was a fleshy appearing mass, bleeding on being touched, not painful, moving in response to the contractions of the various muscles of the eye.

The boy was feeble, being unable to walk, and complaining of neuralgia of the limbs; appetite fair.

I advised removal at once. Up to this time I had not known the nature of the affection, but now there was no mistaking it. There was some enlargement of the inferior maxillæ on the left side. The prognosis as to the result, was bad, and the operation could only be paliative.

The operation was somewhat tedious on account of the matted condition of the tissues of the orbit. Reaction was not very great, and the case, as far as the operation was concerned, progressed favorably. The neuralgia also became somewhat better for a few weeks.

Photo No. 2 shows the condition at the end of one month after operation. The neuralgia spoken of, increased also, the enlargement of the lower jaw. On the left scapular a tumor became perceptible, and the tumor removed from the orbit, again began to grow. There was also gradual enlargement of the the shafts of the long bones.

Thus the morbid process continued until the 13th day of January, 1883, one and a half months after the removal of the orbital growth, when death closed the sad scene.

The patient, on account of the condition of the growth of the jaws, was enabled to take only liquid nourishment, and this also towards the last, became hardly possible.

POST-MORTEM.

Body much emaciated. Dissecting out the secondary tumor of the orbit, fonnd that it extended into the frontal region, the bone beneath was roughened and the line of absorption was clearly visible, the malor bone was also roughened, especially

the orbital plate which was also softened and partly broken down. The glands of the cervical region and also of the inguinal region were enlarged

Opening the cranium, found the dura-mater somewhat more adherent, than normal and found inflammatory spots scattered over its surface at the site of inflammatory spots the inner table of the skull was also roughened.

The surface of the pia-mater was somewhat congested, and its surface looked cloudy. Removing the brain it was found that the morbid process traversed the course of the left optic nerve to the optic commissure, (how much beyond, I am not able to state at present.) The left optic nerve to all appearances being normal. Vision seemed to be perfect up to the time of death in the right eye. Removed the tumor from the left scalpula. The mesentric glands were enlarged, otherwise there were no no tumors in the lungs, liver and other internal organs. The shafts of the bones enlarged, especially the left humerus at elbow, and radius and ulna at the wrist.

ARTICLE XXXVII.

COMMENTS ON CURRENT LITERATURE OF THE DISEASES OF THE NOSE, THROAT AND EARS. By THOS. F. RUMBOLD, M. D., of St. Louis.

Dr. Draper reports a case purporting to be croupous inflammation of the pharynx, larynx and trachea, with occlusion of the larger bronchi, to the Suffolk District Medical Society, which is published in the *Boston Med. and Surg. Jour.*, March 1, 1883.

"G. B. P., twenty-two years old, married, and a brakesman, entered Boston City Hospital, Jan. 8, 1883. There was a history of cough of four months' duration, but no other pulmonary symptoms. Present sickness began five days before entrance, with nausea, vomiting, epistaxis, and headache; sore throat; pain in deglutition. Cough abundant, with whitish expectoration. Slight chilliness and anorexia. Some difficulty in breathing for three days, but wheezing respiration and aphonia for two days' duration.

At time of entrance had a croupy cough and difficult breathing. Could speak only in a whisper. Pulse was 120; respiration 28; temperature 103° F. Throat examined by Dr. Prince, who found larynx covered with a grayish deposit which involved the true and false cords. Fauces showed redness only. Steam from an atomizer was inhaled every two hours, and a poultice was applied every four hours to the neck.

He was very restless during the night, and did not sleep. He had six dejections that were loose, but without membrane or blood.

In the morning he had a copper and opium pill, and the spray of salicylate of soda, ten to the ounce. Sherry, two ounces every six hours. He coughed up several pieces of membrane, some as large as a silver dollar.

In afternoon, respirations 28; pulse 148; temperature 102° F. Chest showed good resonance in front, with some sonorous and sibilant râles; some diminished resonance over left back, and feeble respiration. Some laryngeal stridor. Nails and face slightly blue.

Tracheotomy was performed by Dr. Thorndike, and patient lived five hours after operation. During this time he had stimulants freely and steam from atomizer. Breathing was fairly quiet, but pulse rapid and weak. Died very quietly without signs of suffocation.

DR. GARNETT, who had made the autopsy in the case, demonstrated the specimen.

The tonsils were nearly doubled in size, reddened, their crypts filled with partially adhering plugs of fibrine. On the posterior wall of the pharynx were numerous similar patches of fibrine; the mucous membrane beneath being reddened and injected.

A continuous fibrinous false membrane covered the epiglottis, larynx, mucous membrane of trachea and bronchi down to the smallest divisions which could be followed out with fine scissors.

The glottis opening was only large enough to admit a crow-quill.

In the trachea and bronchi down to the fourth division the fibrinous false membrane formed hollow cylinders, below this point solid plugs.

The lungs were œdomatous, but contained no excess of blood.

The spleen presented the appearances characteristic of acute hyperplasia of that organ.

There was not sufficient evidence of cloudy swelling of the the other organs."

This is the entire history, as given by those having charge of the case from first to last; but even a casual glimpse of the patient's symptoms will demonstrate beyond a doubt, that it is but a very partial history, some of the most important symptoms having been *overlooked*.

This man's occupation, a brakesman on a railroad, was one that exposed him to extremes of temperature; one moment he was beside a red hot stove, the next, in the chilling gale of a New England September.

His earlier symptoms were, no doubt, similar to every one of this class of patients who complain of severe throat trouble. In every one of them they have evidence of nasal inflammation previous to their cough. He had epistaxis, the result of most excessive congestion, a congestion so great as to rupture the bloodvessels, and headache so severe as to affect the pneumogastric nerve to the extent of producing nausea. His cough dated back to September. As this cough was not caused by any pulmonary disease, we must look for its cause in a diseased condition of the nasal and pharyngo-nasal passages. The uniformity with which inflammation of these cavities give rise to a laryngeal irritation, compels us to say that their condition was the cause of the cough symptom. The cough would soon occasion sore throat, which in turn would produce an aphonia.

Of course, it might very naturally be expected that a severe diseased condition of the nasal passages and the throat, might cause sleeplessness, but we also know that the steam atomizer, applied for half an hour or an hour, repeated every two hours during an afternoon and an entire night, must have a very injurious effect in a throat that was so diseased that the patient had lost his voice, and must have helped in producing his restlessness during the night. The mucous membrane absorbed the water from the steam, thus thickening it and making it more ready to be injuriously affected; the inhalation of the atmosphere of the room, which, in comparison with the temperature of the steam, was quite cold. Thus the throat was subjected to such extremes of temperature—the heat from the steam and the cold air, after the withdrawal of the atomizer—that the inflammation was actually increased instead of being decreased.

In the post-mortem examination they *overlooked* another important matter; they neglected to extend their observations as high as they should have done. Their own history proves that they should have made a careful inspection of the pharyngo-nasal and nasal passages. Had this man had a hæmorrhage and a pain in any other part of the body, even if it had been on the foot, a most careful examination would have been made, and all the nerves that it was possible to have connected the two

parts together, would have been named. Why then should the pharyngo-nasal and nasal passages be slighted? Are they not intimately connected with the larynx, lungs, heart and stomach, by the pneumo-gastric nerve?

The following quotations are taken from an article contributed by Dr. Noguet, to the *Revue Mensuelle de Laryngologie, etc.*, June, 1882: "Enlargement of the tonsils is a frequent cause of deafness." If this expression had not been so frequently made, its erroneousness would not require contradiction and correction. Deafness always follows an extention of pharyngo-nasal inflammation up the Eustachian tube, when it prevents the normal entrance of air, or it may go still farther and affect the the middle ear. Pharyngo-nasal inflammation does not exist primarily, it is always a sequence of nasal inflammation. So also does enlarged tonsils follow as a sequence of pharyngo-nasal inflammation. In fact, this is to a certain extent, agreed to by Dr. Noguet, for he "recalls that naso-pharyngeal catarrh and chronic coryza, intensified by narrowness of the nasal fossæ, are often found in patients the subject of hypertrophied tonsils." Dr. Noquet goes on to say that "Hypertrophied tonsils favor the production of naso-pharyngeal catarrh, and in all cases excite and keep it up."

This is misplacing cause and consequence. The removal of hypertrophied tonsils will do much to relieve throat symptoms and some of the inflammation in the pharyngeal cavity, but will not cure a naso-pharyngeal catarrh, which is an extension of inflammation from the nasal cavities, the latter disease being caused by neglected colds.

"Tonsils which are much developed in an upward direction, or from before backwards, prevent tension of the velum palate, consequently, the muscles which open the orifice of the Eustachian tube can no longer act, and the means of keeping up a proper air tension within the tympanum, is lost."

I think it is exceedingly doubtful, that tonsils become so enlarged as to prevent the normal action of the tensor and levator palati muscles; but even if they did, neither of these muscles nor any other set of muscles have anything to do in keeping up a proper air tension within the middle ear. If the action of these muscles, in swallowing, gave the least opportunity for the air to enter the middle ear, then performing this act very frequently must have the effect of allowing a sufficient quantity

of air to enter the tympanum, to restore good hearing. And as patients remain continuously deaf even after very frequent acts of deglutition, this deafness proves that deglutition has nothing to do with air entrance into the middle ear. If the act of deglutition did do so, then we would have no use for the Politzer method of inflation, as the patients could be relieved of their deafness by more frequent swallowing than they do while in possession of normal hearing.

To the fact that the act of deglutition, apparently completely relieves the deafness and fullness in the ears, that are occasioned by their forcible inflation by one's own lungs, is due the maintainance of the Toynbee theory of air supply to the tympanum. That the act of deglutition does not completely relieve the deafness occasioned by the forcible inflation of the ear, may be proved by a very simple experiment.

First, find the exact normal hearing distance of the ear with a watch, note this distance; second, inflate the ears while the nostrils are closed, by forcing the air into them from the lungs. Immediately after this, perform the act of deglutition and instantly note the hearing distance from the watch. It will be found that this distance will be materially decreased instead of its being at the normal distance, as the illustrious Toynbee affirmed, but the normal hearing will return in a very short time, as the requisite amount of air will soon pass up the Eustachian tube, without any assistance.

Another experiment, which will prove conclusively that the air can be supplied to the middle ear *without* the aid of the act of deglutition, is the following:

First, find the normal hearing distance from the watch, note this; second, close the nostrils and perform the act of deglutition. This proceedure will abstract a great deal of air from the middle ear and occasion a fullness and a deafness. Now note the distance from the watch; it will be found to have been very materially decreased; refrain performing the act of deglutition for a few minutes, after the lapse of this brief time, it will be found that the normal hearing distance has returned, the air having entered the middle ear with the aid of any muscles.

It may be that the experimenter will be unable to resist performing the act of swallowing, and should he swallow, he will still find that the normal hearing distance has not completely returned, even after the act of deglutition, although this act will

relieve him of the apparant fullness and deafness. The normal hearing will not have completely returned even after several acts of swallowing, but in a short time, normal hearing will return without any effort on his part. I do not wish to be understood as saying that the excision of hypertrophied tonsils should not be resorted to in cases of deafness. I think that it is really a matter of necessity that they should be removed, but to expect that the deafness will be cured, simply by their removal, without the treatment of the nasal and pharyngo-nasal inflammation, is not logical, as the inflammation of these cavities precede all Eustachian and tympanic troubles.

Many surgeons excise enlarged tonsils at first sight. I prefer to treat the cavities above them, for one or two weeks, as they were inflamed, before the enlargement commenced. At the end of this course, that part of the enlargement that was due to swelling will have disappeared, and the part that was due to hypertrophy, will be seen and may then be excised, if it be thought best, but frequently the treatment proves that the enlarged tonsils were swollen ones only, and not true hypertrophy.

ARTICLE XXXVIII.

GONORRHŒAL ARTICULAR RHEUMATISM.* By E. A. CHANCELLOR, M. D., of St. Louis.

The subject which will claim your attention, is one almost ignored by the profession at large, possibly on account of the infrequency of such cases and the close similarity to other affections of a kindred nature. It is not the purport of this article to bring to light any new ideas nor to explore any untrodden ground, but simple to call attention to known facts which should be familiar to all; which in this grave complication, gives singular gravity to gonorrhœa, so generally looked upon as a simple and trivial affection. Much discussion has taken place in recent times as to whether such an affection as "gonorrhœa arthritis" really

*Read before the St. Louis Medical Society, Feb. 10, 1883.

exists, and only at the end of last century (1781) did this subject gain credence, and then through the observations of Hunter, latterly Ricord, Fournier, Lorain and Rollet, who contributed the most to make the affection a distinct nosological entity.

To have this class of rheumatism we must have as an essential condition, the existence of gonorrhœa; but this does not suffice, "it is requisite in order to be affected, that the subject should have a special disposition, which is not as some have wished to establish, a certain tendency to the rheumatic diathesis."

The etiology of this affection appears to be an *ichorœmia*, or the absorption into the blood of morbid matter, effused into or formed upon the membrane of the urethra. This is theory and bare of demonstration. It is well known that females are seldom affected with this form of rheumatism, which some explain by citing the fact, that the vagina and not the urethra is the common seat of gonorohœa in women; yet we may assert that this is an articular affection, having a special connection with gonorrhœa, and not merely an attack of articular rheumatism, coinciding with the urethral lesion; we notice in those cases that cannot have gonorrhœa without immediately seeing one or more of their articulations become the seat of disease, that without gonorrhœa their joints are always perfectly free and not the subjects of after catching cold, bad hygiene, exposure, etc. to articular pains. It has not been my privilege to see cases of acute articular rheumatism occurring in subjects of gonorrhœa, without being able to say that the gonorrhœa has exerted on them a marked influence, and those cases do not pursue the course of ordinary acute rheumatism.

With your indulgence I cite a few cases taken at random from my case book.

CASE I.—James A. H., sailor, æt. 30, sanguine temperament, admitted to hospital on the 9th day of April, with an acute pain in the left knee, accompanied by swelling and considerable effusion. The pain together with the abnormal condition of joint, caused further investigation; and on examining patient's urethra, obvious signs of gonorrhœa were found, which he had been combating for seven weeks, and only a few days before entering hospital did the knee give him any trouble. His appetite had disappeared and his rest was much disturbed, yet with the above symptoms he had no pain, no perspiration nor any

abnormal condition of the urine. Patient was free from any tendency to a rheumatic diathesis, nor had he at any time previous to this attack, pains in any part of body, though he had been frequently exposed to the cold and wet. He was at once prescribed an urethral injection consisting of armeian bole and sulphate of zinc, which caused the gonorrhœal discharge soon to subside; but with the disappearance of the former, the articular rheumatism increased in severity. He was now confined to bed and kept in a horizontal position with the leg extended and somewhat elevated upon pillows; the knee was freely painted with cantharideal collodion and within seven hours a uniform blister of good size was drawn. With the free use of salicylic acid and lig: am: acetatis, patient experienced great relief, and in a few days he was up and about, the effusion having entirely left the knee to make its appearance in the tibio-tarsal and metatarsal articulations, the swelling increased, a blister was applied and as usual followed by great relief. The gonorrhœa had ceased before the disappearance of the effusion in the knee and the injection was discontinued; the patient was now directed a tonic which improved his appetite and produced an increase of nervous vigor.

On the 25th, of April the swelling and pain gradually left the ankle and foot, and showed itself in the right knee without redness or any febrile excitement, another blister was drawn with good result. Goulard's cerate (as in the above) proved an admirable dressing for the blistered surface.

On the 15th, of May patient was able to walk with a cane, free from pain and swelling, but yet complained of stiffness in the knee. Discharged on the 27th, of May apparently well.

CASE II.—Thomas B., a sailor, aged 25, of a weak and phlegmatic temperament, was admitted tohospital July 19th, with very obstinate gonorrhœa of two month's standing. Various remedies, external and internal had been tried without effect, and were it not for an existing phimosis with a balanitis he would have remained at home, for the discharge had now ceased to give him trouble. The patient was directed an injection consisting of tannin, carbolic acid, glycerine and water to be used four times daily, which was continued with gradual improvement until the 23rd, of August when the discharge ceased with the disappearance of the balanitis. Symptoms of indigestion now set in

giving rise to hypochrondriasis, palpitation of the heart, etc. These with other disturbances of the system soon succumbed to proper treatment; but not long (Sept. 10th,) had convalescence supervened ere an attack of intermittent fever (quotidian) caused patient to return to bed, where he remained for several days. This was readily controlled by the use of sulphate of cinchonidia. Further interest was now taken in the case, since on the 25th, of September the right knee began to give trouble by an immense effusion accompanied by pain and heat without redness. Blisters were applied freely to the joint and anodynes given to promote rest. A slight discharge was noticed on inspecting the urethra, for which sulphate of zinc, two grains to the ounce of water, was given as an injection. After three successive blisters to the knee the swelling partially subsided to reappear in the right ankle. This was treated likewise with blisters followed by an application of simple cerate. The swelling with the effusion continued to migrate, and it was next noticde in the left elbow, then in the left wrist and re-appeared again in the right knee. The patient gives no account of any tendency or disposition to rheumatism, the pulse was normal, no febrile excitement, free from perspiration and the digestive functions entirely natural. Discharged on the 6th, of November with an incomplete anchylosis of the right knee.

CASE III.—Samuel S., colored, aged 20, a professional tramp, entered hospital on November 8th, with pain and swelling of the right knee, which came on without any premonitory symptoms. About five days previous to the trouble in the joint he was cured of a long-standing gonorrhœa, which for a time was very mild, but increased in intensity a few days preceeding the pain in the joint. The patient can give no history of any previous trouble similar to this attack, having enjoyed excellent health up to the present time. The severest pain was experienced with the slightest motion and the knee was kept in a semi-flxed position, elevated upon pillows. Blisters were applied and morphia hypodermically given at night, salycilate of soda in ten grain doses every three to four hours was directed. The patient improved slowly on the above treatment and on the 14th, of November complained of intense pain in the right ankle with perceptible effusion. On the following day patient

was removed to Bayview hospital and hence subsequent history unknown.

CASE IV.—Edward F., colored, a teamster, aged 31, single; consulted me on Dec. 3rd, with pain and swelling in right knee and left ankle, for which he was prescribed iodide of kalium, wine of colchicum and salycilic acid, with this he slowly improved. On examining penis found a slight gonorrhœa of three week's standing, gave a popular urethral injection and the discharge ceased on the fourth day, however, the gonorrhœal arthritis grew worse until patient was confined to bed with knee elevated on pillows, twice blistered and afterwards dressed with simple cerate, and farther made comfortable by applying cotton and over this oil silk. On Jan. 15th, patient still kept within doors, with a slow but gradual improvement. The internal medication was now substituted for iodoform, Vallet's mass and bin iodide of mercury on which patient improved rapidly. There is no history of any syphilitic taint nor rheumatic diathesis, no rise of temperature nor heart complications, nor any abnormal condition of urine associated with the case.

With the disappearance of the effusion the gonorrhœa returned and received proper treatment, but very soon the left knee began to solicit attention by its pain and swelling; internal medication was renewed and blisters applied as above. Discharged on Feb. 17th, apparently well.

The signs and symptoms of gonorrhœal articular rheumatism are many and peculiar, coming on usually without any premonitory symptoms, *suddenly*, with very great heat and swelling, and the appearance of severe inflammation with the most excruciating pains; and localization in one or if several joints are affected, one of those (usually the knee) suffering with peculiar intensity, presenting an enormous effusion that may sometimes simulate a true hydrarthrosis; and may even lead to a spontaneous dislocation in consequence of the great amoumt of effusion, which unfortunately it is impossible to ascertain, as reported by some writers as occurring in the hip joint. One would naturally suppose from this abnormal condition of the joint so affected, that there would be an increase of *temperature* which is not the case, though in many subjects a slight febrile movement may last from two to three days—this is contrary to the usual routine of acute articular rheumatism. There is no appearance of erythy-

matous *redness* over the diseased joint so common in other forms of rheumatism, likewise the absence of *perspiration* is something quite noticeable.

The duration of gonorrhea articular rheumatism, is much longer than acute rheumatism, while the latter may last for fifteen to twenty days, the former will persist for two to three months and even four or five months in severe cases. There is much uncertainty about the influence which gonorrhea exerts on the intensity of the articular pains, which appear only at or about the fifteenth to the twentieth day, and then after the partial cessation of the discharge, though it is not rare to see the gonorrhœa arrested as soon as the "gonorrhœal arthritis" makes its appearance, to become aggravated again after the cure of the rheumatism, those cases are the most severe in which the discharge is scanty and thin, than those in which the discharge is the most abundant. Another characteristic of this special arthritis is the fact that it is not generally complicated, as in acute articular rheumatism, with cardiac affections. Having met with one case in the Baltimore Infirmary, May 1878, and a second in civil practice in the person of Philip F. a clerk, aged 22, of a nervous temperament; came under my charge May 2d, with pain and effusion of left knee, together with an acute sciatica. Patient at present was convalescing from a prolonged attack of gonorrhœa, but to facilitate the progress of the cure he was placed upon an urethral injection of sulphate of quinine, claret wine and glycerine, with happy success. Salicylate of soda with iodide of kalium were given in large and frequently repeated doses, which seemed for a time to aggravate the symptoms; a blister was now drawn on the already greatly swollen knee, which was dressed with vaseline and Goulard's ointment. Very soon pains in the shoulder were manifest, which were finally located in the sterno-clavicular articulation, with no febrile excitement, nor redness, nor perspiration, yet a slight discharge which increased somewhat since the disappearance of the effusion in the knee. Repeated examinations were made of the urine, but no abnormal condition was present. It was now the 10th, of June when these symptoms supervened, and not long ere the patient complained of difficult breathing (dyspnœa) accompanied by palpitation and irregular action of the heart with all the symytoms of endocarditis. The patient was put on proper treatment but did not rally as speedily as we had hoped, a consultation confirmed the diagnosis and the case was placed in

hands of a brother practitioner and lingered for some days. It was now the eve of my departure, hence, subsequent history not known, nor the result of the autopsy. * * * *

Dr. J. Marty (*Arch. Gen. and Schmidt Jahrb.*) has encountered a number of cases of endocarditis existing simultaneously with gonorrhœal rheumatism and I take the libererty of citing some of the most important of the author's conclusions:

(*a*) Gonorrhea may be, and often is, complicated with inflammatory affections of the serous membrane.

(*b*) Rheumatism is not always the connecting link between the specific affection and the disease of the serous membrane, although these complications are quite frequently found to be simultaneous.

(*c*) True primary heart complications are rather rare. The point of origin is usually the orifice of the aorta.

(*d*) This specific endocarditis appears to present the same symptoms and danger as does the simple variety.

(*e*) The endocardium appears to be involved as often, in fact oftener than the pericardium.

"Gonorrhœa articular rheumatism seems to have a marked predilection for the large articulations and notably the knee, falling in order of frequency are the articulations of the wrist, the foot the shoulder, sterno-clavicular, the fingers and the toes, and the tarsal and the metatarsal."

My observations embrace a large number of cases of gonorrhœal articular rheumatism, yet I do not feel warranted in terming this form of rheumatitm other than poly-articular, so rare have been the cases in which one joint alone became affected that I did not deem them of sufficient importance to register. Suffice it to say, that when a single joint becomes the seat of trouble, it is usually acute, whereas chronic in the poly-articular variety. Not alone do we have a "peculiar arthritis" accompanying gonorrhea, but often thecitis and bursitis as in the sheath of tendons of the foot or wrist, or it may be in the tendo-achilles (bursa) or the tendons of the patella. Fournier believes that the pain sometimes ascribed to this affection of a bursa or tendon may be due to a deep seated periostitis—the pain under the heal for example.

The urine does not show any alterations that characterize ordinary cases of rheumatism, in fact no perceptible change from

its normal condition, save in some case more frequent micturation which is due to the local irritation and an occasional cystitis; though in some cases traces of albumen may be detected leading us to suspect "nephritis" which results from the propagation to the kidney of the inflammation that is seated in the urethra. The prognosis in cases of acute rhematism is quite favorable, usually resulting in resolution, leaving no traces of its presence in the joints, while the latter often ends in destruction of the articular cartilages, deformity of the limb and anchylosis.

No treatment has as yet met with success at the hands of the profession, being a local trouble we should naturally employ those agents which have a local action, such as counter-irritants, rubefacients, leeches, blisters, etc. Rest should be strictly enjoined upon the patient for a time and the limb kept in a good position, though flexion (by no means favorable) is instinctively adopted by patients and seems to mitigate the pain. With anodynes and especially morphia hypodermically, we may alleviate much suffering. The remedies with which we usually combat in ordinary rheumatism fail totally in gonorrhœal articular rheumatism, with the exception of iodide of kalium and salicylate of soda which have many advocates and justly so, for in many cases prompt relief usually results. Iodide of kalium and iodoform seem to have special action on chronic forms of the disease. Jabarandi has been tried with moderate success. In the main we resort to those remedies which are usually employed in the treatment of articular troubles. I have presented one of the many complication of gonorrhea, but fortunate for the masses one out of thirty or forty fall victims to this peculiar trouble.

It has frequently occurred to me and with some degree of plausibility, that there must be a duality of gonorrheal virus.

Article XXXIX.

Address of the President of the St. Louis Medical Society.

Gentlemen—

I thank you for the honor conferred in selecting me to preside over your meetings during the ensuing year.

Would that the place were as highly honored by the man as the man is honored by the place.

To fill the position that the great and good have adorned, and that has been distinguished by the occupancy of Beaumont, of Pope and of Hodgen, awakens a sense of unworthiness that mars the pleasure of the installation, by reminding me of how little I have done to deserve it.

I shall, however, seek to merit approbation by using my best energies to promote all of the interests of the Society, and if its work fails to be beneficial in their proper sphere it shall not be my fault. I trust the members apprehend how fatal to any effort their officers put forth, will be lethargy on the part of the members themselves. Let me therefore beg that each one will contribute his quota, towards maintaining interest in our discussions, and that each one will seek to advance the welfare of the organization, that membership may be coveted.

An earnest, enthusiastic, unselfish movement, in this Society single in its purpose to do the greatest good, is the only resource we possess to uphold the honor and interest of the profession in this city.

Other societies have been already formed and still others may be, and they subserve the special object that suggested their organization; but they are not, and cannot be substitutes for this one. We have little interest in other societies; but all others are interested in us; because this is, and must ever remain the representative professional organization of the city. The age of this body, its tradition, and democratic character, insures this result. It is the society of the whole profession, not of any clique or class; but of all respectable physicians, no matter what may be their personal or professional affiliations.

Any honor that is paid to the St. Louis Medical Society, belongs to the whole profession, and any disgrace that stains it touches in some degree, the fair fame of the profession of St. Louis.

The relationship of the profession to the Society cannot, I think, be properly regarded in any other light than that in which I have presented it, and I sincerely hope that animated by this spirit, every man who has the well-being of his profession at heart, will take a hand in the proceedings, and not attempt to solace indifference, with the thought that he has no responsibility.

If this idea prevails, I am certain that the cause of Science, and that of the local professional interests will be benefitted, and that personal intercourse will be more intimate and agreeable.

I thank you again, gentlemen, for the honor conferred upon me.

Proceedings of Medical Societies.

Article XL.

ST. LOUIS MEDICAL SOCIETY.

Taken by the Journal's Stenographic Reporter.

Saturday, Feb. 10, 1883.

Dr. Bernays.—I have a couple of cases here of plastic operation, which I would like to have the members look at for a few minutes. The first is a case of cancer which involved the jaw and part of the mouth, the lower lip; the other is a case that involved the back of the nose, up as far as the frontal cavities, the whole nasal bone and the whole of one side of the lachrymal bone. I removed the cancers in both cases, performing plastic operations. This is the patient who had the cancer on the lip. I performed the operation about five or six months ago. The other was a case of carcinoma that started on the back of the nose, between the eyes, and it grew gradually until there was a lumpy tumor there which ulcerated about the middle space between the nasal bones, and began to encroach upon the frontal. I was obliged to insert a saw into the side of the nose, and by sawing through the bones that came in my way, I cut down through the frontal bones and also through the lachrymal bone, then with the knife I removed all this part of the nose, making a straight cut across its back. This left such a very large defect that I was obliged to cut a flap out of the forehead which reached almost to the hair, the beginning of the growth of hair, the flap healing by first intention. Since then the nose has fallen in, there being nothing left to hold it up. You will find that the point of the nose is normal, but the back of the nose has sunken in. However, you will find no ulceration and no suppuration; not the least bit anywhere. The only disagreeable point about this case, is the lack of the lower eyelid, which I was obliged to cut away in part, the lower eyelid of the right eye. The scar on the forehead has become very smooth; it is very noticable, and there has been no return of the disease so far.

I think the woman may be congratulated on the success of the operation, so far as the removal of the cancer is concerned. It has certainly not improved her looks any, however.

DR. WILLIAMS.—I would like to say a word in regard to the last case. I would suggest to the Doctor that instead of making an additional plastic operation, which I believe he proposes to do, I would simply enucleate the lachrymal gland and stop the flow of tears. The greatest trouble with the lady is the constant lachrymation—the tears running down over the face, excoriates the skin. It is an easy matter to relieve her of that trouble by enucleating the lachrymal gland of the eye. If I were in his place I would do that instead of trying an additional plastic operation.

DR. HURT.—I would like to ask Dr. Williams what effect the destruction of the lachrymal gland would have upon the mucous lining of the conjunctiva of the eye?

DR. WILLIAMS.—It has no perceptible effect whatever; certainly no bad effect.

DR. MEISENBACH presented a pathological specimen of glio-sarcoma, and read a paper on that subject. (Which appears in the Original Articles.)

DR. POST.—The case presented by Dr. Meisenbach, with the accompanying specimen is of very great interest. It represents a class of cases which is one of the most important contributors to our study of malignant growths. It is also of interest because it represents a class of cases which any practitioner is liable to meet with; they come into the hands of the general practitioner first, and are afterwards brought to the specialist and his proper diagnosis and treatment may result in the acquisition of additional exact medical knowledge, and in alleviating the suffering or possibility in saving the life of the patient. This case is of special interest to me, inasmuch as I had an opportunity of seeing the patient during life, through the courtesy of Dr. Meisenbach. I advised the parents of the patientto have the eye enucleated immediately. If this advice had been followed, it is probable that the life of the patient would have been prolonged, though probably the disease would have returned. This tumor has been examined quite carefully and the microscope discloses the fact that it is a glioma or a glio-sarcoma of the retina.

The histological position of glioma of the retina is not positively determined. You will recollect that the retina is divided into various layers; enumerating from within outwards, we have the internal lining membrane, the nerve fibre layer, the ganglion layer, the molecular layer, the internal granular layer, the inter-granular layer—the external granular layer, the external limiting membrane and the layer of rods and cones. By some histologists, retinal glioma is described as a proliferation of the retinal granules, *i. e.*, a proliferation originating in one of the granular layers. It is held again, by Rindfleisch and some others, that glioma of the retina is a proliferation of the cells of the neuroglia. Delafield, of New York, in a report upon glioma, read before the American Ophthalmological Society, in 1870, describes glioma as arising from the connective tissue cell of the neuroglia, and as the connective tissue cell is characteristic of sarcoma, he classifies these tumors as glio-sarcomata. I think there is a tendency at the present day, among oculists and histologists, to adopt the same classification. The objection may be made, that sarcomata are often removed and do not return. Why is it then if glioma of the retina is of the same nature, it is so much more fatal in its results than choroidal sarcoma? The answer is found in the anatomical relations of the tissues invaded. The sarcoma, or as we ordinarily call it, choroidal sarcoma, originates in the choroid which is enclosed by the unyielding sclera and terminates at the optic foramen, so that the disease may exist for a long time and not spread beyond the tissue in which it originated. There are many cases where the patient has lived many years after the removal of such tumors, and died of some other disease. On the other hand, the tumor which we call retinal glioma, originates in the retina, which histologically is an expansion of the optic nerve and in direct communication with the brain. Another reason of great importance why retinal gliomata are so much more fatal than choroidal sarcomata, is that glioma of the retina is a disease of early childhood and infancy. It occurs in patients who do not recognize the fact that there is a loss of vision; or if they recognize it, are not capable of attraction attention to it; and it goes undetected till it has reached such proportions that it is observed by others? Then although we may remove it from the site of the original invasion, we are unable to reach the ramifications of the disease, and the fatal result ensues sooner or later. The disease is one of child-

hood and infancy. You may say it is the malignant growth of infancy. Sarcoma has been found in children. There is one case in which a sarcoma was found in a child three years of age, and there are other cases reported. Glioma has been stated to have have occurred in adults. I have the report of a case in mind, of a patient some 23 or 24 years old; but it certainly is rare, so that we are justified in regarding the disease as one of childhood. Knapp, in his book on intra-ocular tumors, describes seven cases of gliomata. These seven cases were all under the age of five years. Delafield, in the article to which I have referred, gives an account of five cases, all of which occurred in children under five years of age. Carter records five cases in his book published in 1875; of these, in two, he does not give the age, but from the context we are justitified in assuming that they occurred in young children; the others were in children under four years—one was three years, and one two years; the other was some four or five months old. During the last eighteen months, three cases have come under my observation. One was a child six years old, another five years, another nineteen months.

It is of the utmost importance for us to be well posted upon this disease clinically. There are certain things with which it is liable to be confounded. If we find something growing in the eye of a child, back of the lens, occupying the vitreous chamber, we should ask ourselves whether it is glioma or not. There are certain things which belong to the diagnosis of glioma of the retina, which come only by experience, which belong to the medical sense, you may say. Such is the old characteristic feature, the metallic yellowish brilliant lustre which comes from the eye, which has given it the name of amaurotic cat's eye. The conditions with which we are most likely to confound this disease, are choroidal sarcoma, and choroidal exudations. As choroidal sarcoma is a malignant disease and the treatment is immediate removal of the globe, mistaking choroidal sarcoma for glioma would lead to no bad results. With regard to choroidal exudation, we must depend largely upon the history of the case. There are certain antecedents which would incline us to the opinion that it is a choroidal exudation rather than retinal glioma that we have to deal with. Choroidal exudations follow upon choroiditis; we also find them following some injury to the eye, as where a foreign body has been lodged in the eye; we frequently find then following cerebro-spinal meningitis. It

has been my experience to see a number of these cases. I have seen two or three cases where the statement has been made to me, that the disease preceding the trouble was typhoid fever. My knowledge of the correctness of the diagnosis did not permit basing any conclusion upon the statement. It would seem quite possible that we should have some such trouble following typhoid fever; we have abscesses after it, and suppurative troubles, and it does not seem to me improbable that the choroid might be invaded in a similar manner.

The prognosis in retinal glioma is most unfavorable. Knapp, in his seven cases which I have beforespoken of, records the death of five of them, and it is certainly implied in the other two, for he makes this statement, that "in well established cases the results have been, probably without exception of a fatal character." Delafield, in his cases, records the death of four out of the five. The fifth, he states, was living at the time it was last seen—this was fourteen months after the removal of the original tumor. There was no return of the tumor. Carter has recorded two cases of recovery, one of them is the case of a child, where the tumor was removed and was seen four months after with no recurrence. That I should not think was sufficient length of time to establishlish a case of recovery. There is, however, another case in which he removed a tumor from a child three years of age, who at the time of writing, was fifteen or sixteen years old, and there was no recurrence. We would probably be justified it putting that down as a case of recovery. Sichel reports a case of spontaneous recovery, where the disease was treated by his method, which I suppose might be called an "alterative treatment." Atrophy of the globe occurred and recovery resulted. In the cases which I have seen, death has resulted in all. On the 4th of August, 1881, I removed an eye containing a retinal glioma. The child, at the time, was very much emaciated and was suffering a great deal, was a very sick child. Immediately upon the removal of the tumor he began to improve, and it was hoped that the disease would not return. Four months later the tumor reappeared in the orbit, but the child continued in good health and free from pain till April 23rd, 1882, about eight and a half months after the enucleation, when the tumor became very painful and in three days the child died very suddenly. I saw him only once and there was no post-mortem. The ordinary course for glioma

is for some such result as Dr. Meisenbach has reported to-night, to occur. The globe ruptures, a discharge ensues and the patient dies from exhaustion. The parents of Dr. Meisenbach's patient told me that the child's eye had been as it was when I saw it, five or six times before. This is often the case. The tumor recedes and comes again and frequently the parents encourage themselves with the idea that the disease has disappeared, when in fact it is only quiescent for a short time. With regard to the treatment, my own opinion certainly is that as soon as the diagnosis has been made, as soon as we are sure or have good reason to suppose that the child has glioma of the retina, we should enucleate and remove as much of the nerve as possible, and I am inclined to think that in such case there is a prospect of permanently curing the case. My opinion is based upon this case of Carter's and upon one of the cases that Knapp reports in which he says that one eye was removed and the other eye was invaded by the disease sometime afterwards. The other eye was not removed and the child died. At the post-mortem, the optic nerve of the eye which had been enucleated, was found to be in a normal condition, indicating apparently, that if the glioma had been removed from the other eye, the disease would probably never have manifested itself again.

Dr. Pollak.—You may add two more cases to those who have recovered from glioma after enucleation. One case in which I enucleated the eye of the patient, some twelve years ago; I enucleated the eye for a very typical case. One-half of the eye I sent to Dr. Knapp, at New York, and the other half I have myself. I had it mounted for the microscope by Dr. Baumgarten. This operation was performed twelve years ago and there has been no recurrence of the disease. The other eye is perfectly sound. The other case is one which Dr. Dickinson will probably remember; it was operated on, eighteen or nineteen months ago, a boy ten years old. This was also a very decided case of glioma. I saw the parents of this child only a few days ago and they told me the child was perfectly well, at least there was no recurrence of glioma. All the other cases of this disease which have come under my observation, have been inclined or subject to secondary tumors and death has always been the result.

DR. POST.—I would like to ask the Doctor the age of the patient whom he operated on twelve years ago?

DR. POLLAK.—I suppose she was 38 years of age; she is now 50 years old.

DR. DICKINSON.—I have seen several cases of this kind. The longest period that any one has survived the operation, according to my observation, was fifteen months.

DR. POLLAK.—I would like to ask Dr. Post if he ever saw a case of double glioma, in which both eyes were affected?

DR. POST.—The case which I referred to is a child nineteen months old, was one in which the eye was removed and the glioma reappeared in the other eye in about two months. The other eye was not removed so far as I know, and the patient died.

DR. POLLAK.—I don't refer to that kind of cases. I mean cases in which both eyes were affected at one and the same time—simultaneously. About two months ago Dr. Fairbrother showed me a case only two months old in which there was typical case of glioma in both eyes—there was the metallic luster in both eyes.

DR. POST.—I see no violation of any law in that. I should think it would be natural enough for that to occur.

DR. WILLIAMS.—While we are on this subject I wish to say that I have seen several cases of this kind of giloma of the retina, and so far as my memory serves me now they have all died. I remember one boy about five years old at Cincinnati who had double giloma, both eyes were simultaneously affected. The parents of this boy, because I couldn't promise him a restoration of vision would not submit to operation at all. Of course the boy died. I have a lady patient in the city just now whom I suspected of having glioma in the beginning but I think it is not. I think it is a tubercular deposit in the eye, although I felt quite sure it was glioma when I first saw her.

Dr. Chancellor then read a paper on "Gonorrhœal Orchitis." (Which appears as Original Article.)

DR. LOVE.—This is a very interesting subject—exceedingly interesting to me for the reason that recently I had a very interesting case of gonorrhœal rheumatism which affected the knee joint. The suffering was intense and it came on during the progress of a case of gonorrhœa which I had not previously seen.

As soon as the rheumatism occurred the gonorrhœal discharge ceased. My treatment was active. I blistered, I rested, I gave salicylic acid internally; I gave iodide of potassium, anodynes etc. but the case progressed unfavorably both to me and to the patient. Day after day there was no marked change; his suffering was very great, and greater at night, and I was finally forced to allow him to place the leg in the flexed position, which seemed the most comfortable to the patient. After blistering and applying an emollient to the blistered surface, I applied a certain amount of pressure, hoping that the pressure might produce comfort as it does sometimes in cases of effusions in joints. I was finally obliged to place the limb in a Hodgen splint—the inclined splint. This gave him comfort as he could move his leg around and sit up. It gave him more comfort than anything else, but it looked formidable and made him feel that the case was serious to have it strung up to the ceiling; it disturbed him and after a few days I was informed that my services were no longer required. He had gone back to his first love—little pills and homœopathy. I learned the next day that the case had taken a sudden turn for the better. I suppose sufficient time had elapsed for my active medication to take effect. The homœopathic physician who attended him is a friend of mine, and he is the only man in St. Louis who really confines himself to infinitessimal doses, and who believes "simila similibus curantur" is the true and correct law; and that medicines increased in strength as they were diluted. Well, I met him and wanted to know his treatment, for I have always been liberal enough to take ideas from even a homeopathic practitioner. He told me that he had given the man pulsatilla I forget the strength of the dose, but it was of exceeding smallness. I didn't receive any satisfaction from him, but I was still further confirmed in my opinion that the patient had got rest, and my medicine had had time to take effect. The subject is exceedingly interesting to me and I would like to hear further remarks about it. In this connection I would say that I believe that the indication for treatment is the same, and the same course should be followed as in a case of gonorrhœa. We should produce a free flow of urine; give citrate of potash, carbonate of lithiria. These I believe most excellent in an acute case of gonorrhœa. I think an acute case can be treated very efficiently by giving these remedies. We should act upon the kidneys and produce a large flow of urine. I remember a remark made by Dr. Hodgen, which was

to the effect that he believed in the treatment of gonorrhœa the principle to be followed was not to give medecine at the wrong end; not to drive anything into the urethra or into the bladder, but to make the kidneys act and wash the poison out.

DR. HUGHES.—The question comes up however, is there such a thing as a distinct gonorrhœal rheumatism; have we any facts which indubitably establish the existence of a distinct species of rheumatism of this character. Have we any more gonorrhœal rheumatism than we have malarial rheumatism? We have rheumatism superinduced by malaria as its excting cause; we have rheumatism brought on by gonorrhœa as its exciting cause; by the depressing emissions and prolonged strains upon the organism—strains which depress vitality and permit the latent diathetic condition to express itself in a localized rheumatic inflammation. But we cannot erect them into a species any more than gonorrhœal rheumatism can be so erected. Now you will observe in these cases that an individual who is inclined to have rheumatism, if he contracts the gonorrhea and it produces an irritation and depression of his system, you will find him suffering from rheumatism, rheumatic arthritis as a concomitant, but is it the sole consequence of the specific gonorrhœal inflammation? I have grave doubts upon that subject. I do not believe the clinical facts are sufficient to justify the conclusion that there is such a thing as a specific gonorrhœal rheumatism independent of the constitutional diathesis. The individual who has rheumatism accompanying gonorrhœa at one time will have a recurrence of the rheumatic inflammation upon becoming depressed in consequence of malarial empoisonment, and the next physician who is called to treat him characterizes the disease as malarial rheumatism. When a man speaks of malarial rheumatism I understand that he means rheumatism which is present, malaria which developes a latent condition. It is not uncommon to find an individual who is disposed to rheumatism have it in consequence of some depressing cause. It is only necessary in these cases to have a source of constitutional irritation to depress the system in order to bring out the latent diathetic condition, whatever may be the exciting cause at the time is likely to be called the specific cause --the especial cause—the sole cause whereas it is but the determining factor, and the all important factor is the underlying diathetic condition; it is because the individual has a rheumatism

in his constitution and becoming depressed in consequence of the gonorrhœal empoisonment he develops a latent diathetic condition. It is hardly sound to conclude that because gonorrhœal rheumatism is often somewhat different in its appearance from other forms of rheumatism it is different in its effects. There are shades and degrees of the rheumatic inflammation in the same person at different times of his life, and in different persons.

DR. PREWITT.—It has been very seriously doubted whether there is any such a thing as gonorrhœal rheumatism. I think we may express quite a strong doubt. For my part I have doubts as to the existence of gonorrhœal or malarial rheumatism. I have no doubt that there is a synovitis occurring in conjunction with gonorrhea, but I don't believe it to be rheumatism. Rheumatism is due to a specific cause just as much as small-pox or measles.

Where there is a synovitis—that which occurs with gonorrhœa—it is not due to the same cause as rheumatism. It will not do to say that it is simply the development of a diathetic condition. I think for the reason that we find these cases of so-called gonorrhœal rheumatism being manifested in patients who have no rheumatic tendency, who have never had rheumatism, except when they had gonorrhea. I remember to have treated a case of a man who was subject to gonorrhœa—had a gonorrhœal diathesis; and every time he had gonorrhea he had this rheumatism that is, he had swelling of the knee joint, and at no other time. In my experience the trouble has been limited to the knee joint. This trouble is not due to the same cause as rheumatism; that is very clear to my mind, it is not, strictly speaking, a rheumatism any more than acute synovitis is a rheumatism. There is no relation between the so-called gonorrhœal rheumatism and true rheumatism any more than there is between acute synovitis and rheumatism. It is not amenable to the same treatment. It seems to me that it is wrong to speak of it as rheumatism because it conveys a wrong idea.

DR. HUGHES.—Do we not find that patients who have gonorrhœa manifest rheumatic symptoms sometimes?

DR. PREWITT.—There is no question that a man may have gonorrhœa and rheumatism at the same time; but it does not follow that one is dependent on the other. We are speaking of an affection of the joint which is dependent on gonorrhœa. I don't believe it is rheumatism. I don't believe there is such a thing as

malarial rheumatism or gonorrhœal rheumatism which results from a depression of the system. I believe it is due to a specific cause just as I do not believe small-pox is due to malaria, but to small-pox poison.

SATURDAY, Feb. 17, 1883.

DR. LAIDLEY.—I have a specimen to present to the society. Five years ago I circumcised a gentleman for a troublesome phimosis which permitted only a small quantity of water to be passed at a time, and by this means I remedied the trouble under which he was laboring at the time. About a month ago I was called to see this patient on account of a tumor that was located near the head of the penis, underneath it, and extending along and reaching within an inch of the lower margin of the meatus urinaris, extending back a distance probably in its greatest diameter of three-quarters of an inch. This tumor extended downwards and forwards at an angle of about 35 degrees. On examination I found what I thought to be a horny tumor. This specimen which I have with me shows the character of the tumor. After it was removed I endeavored to remove not only the tumor but the membranes which produced it, and in so doing I cut as deep as was possible without cutting into the urethra. Subsequent examination showed that I did not cut deep enough to secure the membrane from which it was developed, and the result of the operation is that it was a failure. On day before yesterday I learned that the tumor was being reformed. I would like to have the members examine this tumor. It is rather peculiar as appearing on this organ, and especially in that part. On looking up the history of these operations I found that these tumors are not very frequent on that part of the body, and but very few of them are recorded as having occurred on the penis. Another point of interest in this case is the fact that the tumor has attained its present size in a very short time. While I have the floor I shall present the splint which was used in the case of resection of the knee joint which I presented two weeks ago. I present it because of its simplicity and the good results which it secured. It is as simple as it could be made. It is composed of two parallel bars of iron passing on two sides of the leg, secured by bandages and plaster-of-Paris so

as to hold the limb in position. The fenestræ enabled me to apply the dressings without removing the splints. The splints after being applied were encased in plaster-of-Paris bandages passed across from one side to the other.

Dr. Johnston.—I think these tumors designated under the head of horny tumors are growths of the dermoid tissue, they originate perhaps in some of the sweat glands—the sebaceous glands. We know the nature of these tumors is very much the same as hoof and horns or the nail of the horse, and they are sometimes found growing from the mucous tissue; but I think if we examine the subject carefully we will find that they are mostly confined to the true skin—the epidermis, and they are in their nature and substance made up of the same material as the finger nails. They are the same in structure as the horny tumor which we have all seen growing on the fore-leg of the horse. They are supposed to originate through some iritation.

Dr. Hughes.—I want to ask Dr. Laidley what is the advantage of a resection of the knee joint over an amputation?

Dr. Laidley.—I am sorry that the patient is not here to-night for I could demonstrate the advantages. Dr. Johntson asked the same question the other night, though it was based upon a different statement; it was based on the statement of a a case in which Dr. Lutz operated where there was four inches of shortening, which was of course a good deal of shortening. If my patient was here he would show a leg in which there is only one inch or not exceeding an inch and a quarter of shortening, and you would see a limb that he can use without difficulty after four and a half month's time. It is certainly a very useful limb. Before the operation the man suffered intense pain, and he was continually falling and fracturing the adhesions, and during this time he suffered from continuous fever; this operation has relieved him of all these troubles and allowed him to retain his limb, which is certainly very useful. It is perfectly straight and only about an inch and a quarter shortened. He walks without any difficulty. No one to see this man walk would know that an operation had been performed, except for the stiffness of the joint; of course he has no use of the joint, but otherwise the limb is in as good condition as it was before it was injured. There is no doubt that this leg is better than a cork leg. An amputation would endanger his life as much as a resec-

tion, and as a result we have a very useful limb. It is certainly a very satisfactory result to the patient.

DR. HUGHES.—That is all I want to know. I don't see any advantage of this stiff leg with some shortening over an artificial one without shortening. I think if it were my leg I would prefer to have it cut off than to have such a leg.

DR. DICKINSON.—It is pertinent to this subject for me to state that it was my pleasure to see a similar operation to this performed by a surgeon in London. He performed it in this case because the knee was bent nearly at right angles—90 degrees—and a fragment of the bone was removed so as to straighten the limb. What the result was I don't know. While at Charing Cross Hospital Mr. Guthrie called my attention to a patient in which he performed an operation in a similar manner exsecting a right angle of bone.

DR. CHANCELLOR.—In presenting the subject of gonorrhœal articular rheumatism at the last meeting, I did so from a practical and not a theoretical standpoint; my observation extending over several years at hospitals in Baltimore, Philadelphia and New York together with many years in civil practice. I did not claim for this subject that it was an entirely new one to the profession; but there are many points which are different and distinct from the ordinary articular rheumatism, arthritis, pyarthrosis, ryperplostic arthritis, etc. It differs in many respects. You have no febrile excitement, you have no perspiration, no elevation of the pulse, and it is not dependent upon any rheumatic diathesis. The effusion or swelling coming on with the cessation of the discharge of the gonorrhœa and reappearing as soon as the effusion of the arthritis disappears. And then in these cases of gonorrhœal arthritis we find that they are always chronic and not like the ordinary rheumatism, which is acute or sub-acute and very seldom chronic. Then again the ordinary rheumatism tends to resolution whereas this does not; so also gonorrhœal articular rheumatism produces anchylosis complete or incomplete. At the last meeting I failed to call attention to many remedies that I have used in the treatment of gonorrhœal articular rheumatism such as cupping and leeching, the lateness of the hour not permitting me to do so. I also neglected to speak of the benefits to be derived from the thermo mineral waters, saline and alkaline with which to my knowledge Dr. Jourdan has

experimented considerably. I would like to have the subject discussed further by the society, not wishing to say anything further until I hear the views of the members on my paper. A point was raised last Saturday as to whether this trouble ever occurred anywhere besides the knee; I can state that I have seen some thirty-three cases which have all been poly-articular and not mono-articular. Dr. Love reported a case in which it was mono-articular. I did not record such cases because I thought they were of so slight importance as not to require notice.

DR. ATWOOD.—I would like to ask the doctor whether he has ever seen as a result of gonorrhœa an effusion start on a serous surface elsewhere than in the neighborhood of a joint?

DR. CHANCELLOR.—No, sir; but I have seen cases of peritonitis resulting from gonorrhœa; also an inflammtion of the duct of the gland of Duverney.

DR. ATWOOD.—I have had some experience in the treatment of gonorrhœal rheumatism, and recognize it as a distinct disease. I do not believe the name is a mis-nomen. I take precisely the same view that has been expressed by Dr. Chancellor and the question that I asked him was pertinent to a case that came under my care some years ago. I think the case is well worth recital, and I felt certain that it was a case of gonorrhœal rheumatism. I took charge of the case some two months after the incipiency of the attack; in the meantime he had been under the control of another physician but there had been no improvement and when I saw the case the man was lying in bed where he had been for that length of time and was somewhat neglected by his nurse. He had several large bed sores. The history of the case previous to this time was about this: While laboring under an attack of gonorrhœa he was suddenly attacked with violent pain at the occipito-cervical junction and immediately began to suffer from what appeared to be hemiplegia. The pain he described as most excruciating, exceedingly decided and permanent. When I saw the man there was complete paralysis. The joints—the elbow, wrist, knee and ankle were as I say enormously enlarged, and they were œdematous. There was evidently an effusion. It was easy enough to detect the chronic thickening of the tissues adjacent thereto. Well, in the course of my inquiries I observed the fact that he had gonorrhœa and I

believed that the desease was dependent upon the primary malady. I treated him not with plasters but with the application of exceedingly strong liniments. I gave him mercury, strychnine and quinine; and had the parts rubbed with veratrum, oil of mustard, etc. and also had it placed on cotton and applied to the parts and wrapped with oiled silk and suceeeded after a time in procuring a diminution of the swelling and the paralysis disappeared; but the gonorrhœa had returned. I am satisfied that this effusion of the membranes was the result of the gonorrhœa.

DR. GREEN.—I would like to inquire if in these cases of peritonitis the patients get well?

DR. CHANCELLOR.—One case in three died. Two of the cases were in Baltimore and one in Philadelphia.

DR. GREEN.—Was it general peritonitis or was it peri-metritis?

DR. CHANCELLOR.—It is peri-metritis, usually.

DR. JOHNSTON.—I don't think the doctor stated whether in these thirty-three cases there was any examination of the urine to see whether there was any uric acid present.

DR. CHANCELLOR.—Yes, sir; I stated that the urine was examined and that none was found in the majority of cases.

DR. JOHNSTON.—I should think then if there was no uric acid present and the analysis of the urine was carried on correctly—scientifically—then it would follow that we would have to exclude the theory of a rheumatic diathesis in these gonorrhœal cases; and then the question comes up, by what process does the cessation of the discharge at the head of the penis cause the disturbance of these other parts. Is the discharge absorbed by the blood in the neighborhood of the joints so that you have an acute synovitis or a disturbance of the intestines?

DR. HUGHES.—I want to ask Dr. Atwood in regard to this case that he has reported, in which there was hemiplegia, whether he would regard the hemiplegia as gonorrhœal hemiphlegia. I am sure that he would not. I am sure that the nomenclature would not justify the application of that term. I wish to be understood as not having denied the clinical facts set forth in the excellent paper of Dr. Chancellor last Saturday evening, but as

controverting only the view that there is such a thing as a specific gonorrhœal rheumatism independent of a rheumatic diathesis. Now in the detail of the doctor's cases he gave us the treatment which consisted of salicylic acid frequently administered and I have no doubt that the treatment was correct; and I have no doubt that those of them who displayed rheumatism, possessed the rheumatic diathesis and would have had rheumatism if some other equally depressing influence had been acting upon the vitality of the system. It cannot be explained upon the hypothesis of septic infection and arthritic implication which sometimes follows gonorrhœa, because the septic infection takes place too rapidly and when it assumes the character of rheumatism the inflamation disappears too suddenly so that I cannot concur with the expression of Dr. Prewitt that it was the result of a septic infection. I believe in the existence of a rheumatic condition that may be excited by gonorrhœa as an exciting cause superimposed upon a rheumatic diathesis. That is all in my opinion that there is in it. Gentlemen who meet these cases clinically recognize the fact in the treatment in the majority of them. It is revealed where you have a general rheumatic fever; it is revealed where you have the existence of lactic acid. The only objection that I wish to make to the excellent paper is the giving of a specific name to this trouble.

DR. HURT.—I am not aware that anyone present—not even Dr. Chancellor—contends for the genuineness of the rheumatic nature of this trouble although it is a synovitis, an arthritis or a peritonitis and when a synovitis it is called rheumatism because it is a disease analogous in its location and symptoms to that of rheumatism; and it is believed that it has its origin in a retrocession of the gonorrhœal virus or irritation. Now, I don't know that any authority has undertaken to contend that it is a rheumatism derived either from a rheumatic diathesis or from any other cause such as acid or lithates in the blood such as we find in true rheumatism; simply it is called gonorrhœal rheumatism for the reason that we have a disease that resembles rheumatism; just as we have a disease that resembles measles which we call German measles. That is for the same reason. Custom makes law. Custom gives names in medicine. When we come to study the pathology and causation of it, why, of course, we go to the

cause. For that reason we call it gonorrhœal rheumatism, or gonorrhœal penitonitis. I think one of the most violent cases of gonoerhœal puerperal peritonitis that I ever saw was a gonorrhœal peritonitis, and I think it was a general peritonitis. The patient before the disease terminated in convalescenee was enormously swollen; as much distended, I think, as any patient I had ever seen with peritonitis, and the cause was evidently a case of gonorrhœal inflation. The husband had consulted me some two or three weeks previously to his wife's illness for gonorrhœa which had made its appearance that morning, and he said he was very much concerned for fear that he had communicated it to his wife. As the sequel proved his fears were well grounded.

DR. A. GREEN.—I think we can very easily explain how peritonitis may follow, at least in the female subject, an attack of gonorrhœa because we merely have to assume that the gonorrhœal virus has just extended with the same tissue, as the mucous membrane from the urethra to the vagina and into the uterus, and there it either comes in contact with the Fallopian tubes or it need not, and there it produces a perimetritis or a general peritonitis, or we may have what I think more likely, merely an attack of the lymphatics, not by pus but by a specific poison. If we actually have pus there, I think we would have septic peritonitis as a result. I do not think we actually have a peritonitis in all cases. But while we can explain how this result may be reached, I can't say that I am satisfid that we have a true rheumatism as a result of gonorrhœa. I have seen a good many cases of gonorrhœa, especially in the army, and I cannot now recollect of a single case in which there was gonorrhœal rheumatism following it. I must say that I am inclined to agree with Dr. Hughes, that this rheumatism would not be present in connection with the gonorrhœa, were it not for the rheumatic tendency—the predisposition of the person to rheumatism. I must say that I do not believe there is such a thing as gonorrhœal rheumatism.

DR. POLLAK—I wish to ask Dr. Chancellor if he ever saw a case of ophthalmia following gonorrhœa?

DR. CHANCELLOR.—I don't remember such a case.

DR. POLLAK.—You have never seen conjunctivitis and ophthalmia following gonorrhœa?

DR. CHANCELLOR.—I have never seen them simultaneously.

DR. POLLAK.—But not following?

DR. CHANCELLOR.—No, sir.

DR. MOORE.—I didn't hear the paper of Dr. Chancellor, having heard only Dr. Hughes' remarks. In regard to the treatment of these cases, was it anti-rheumatic?

DR. CHANCELLOR.—Yes, sir, generally with salicylic acid, salicylates, iodide of potash and jaborandi.

DR. MOORE.—And Dr. Atwood, I understand, has treated cases with ventrum viride?

DR. ATWOOD.—Not veratrum viride internally but locally. I gave no veratrum viride. The viride was used merely as a counter-irritant.

DR. MOORE.—Was your internal treatment anti-rheumatic?

DR. ATWOOD.—No, sir.

DR. MOORE.—Have you gotten better results by the anti-rheumatic treatment?

DR. ATWOOD.—The anti-rheumatic treatment, as Dr. Chancellor states in his paper, gives no good results at all.

DR. MOORE.—He says his treatment was largely anti-rheumatic?

DR. ATWOOD.—And he got no good results.

DR. MOORE.—Did no good results follow any treatment?

DR. CHANCELOR.—I have found some good results from iodide of potash and mercury in two or three cases, but I cannot say I have found any positive results from any treatment; we have to wait until it wears itself out in the majority of cases.

DR. FAIRBROTHER.—I will refer to a case in point, and it seems to me that it goes a little way to illustrate a view contrary to that advanced by Dr. Hughes. The case in question occurred during the past summer. The patient was a most robust and healthy man—an Englishman who had gonorrhœa in July, and about the time of the subsidence of the gonorrhœa, a rheumatic irritation occurred in the left hip joint. This went on from bad to worse until he was unable to get out of bed. Through the month of September I treated him, keeping him upon the anti-

rheumatic treatment; still the case grew worse continually. Dr. Mudd saw the case, being called in consultation with me, and favored the anti-rheumatic treatment, accepting it as a typical case of gonorrhœal rheumatism, and not hoping for much from treatment; and our hopes were not disappointed, because he continued to get worse. He had to be lifted from the bed to the chair. The trouble was communicated or transferred from hip to the knee and ankle all on the left side. The anti-rheumatic treatment, according to the best authors of the present day, was pushed most energetically. He bore medicine well. He took it with enthusiasm, being anxious to get well; but nothing in the way of treatment had any effect whatever upon the disease. In November we decided to send him to Hot Springs. We fitted up a conveyance and got a car for him to go down there in. He had to be carried to the hotel, but improvement followed immediately after his commencing bathing at Hot Springs. It was really remarkable, and this is only one case of those that have come under my observaton, in which the rheumatism has improved under that treatment. This case grew rapidly better. In six weeks he came home, limping of course, but better in every way, and is in a fair way of getting well. He can walk without a stick. He is not entirely well, but considers himself so. This gentleman was of a most robust constitution, and was not depressed at all by the gonorrhœa; he kept at his work often sixteen hours a day, having charge of one of the elevators, and during the existence of the gonorrhœa, was not depressed; he said he never enjoyed more vigorous physical health than he did during the presence of the gonorrhœa.

DR. JOHNSTON.—Did you examine his urine?

DR. FAIRBROTHER.—No, sir.

DR. BERNAYS.—I am considerably interested in this question and I have been listening with pleasure, to the remarks, and it strikes me that the first question in regard to gonorrhœal rheumatism, is to find out whether there is such a thing or not; whether the causes of the inflammation of the joints, which the gentlemen speak of, are really the result of the gonorrhœa or not. One fact that seems to point in favor of the view that there is a connection between the diseases, is the fact that the patients have had repeated attacks of gonorrhœa, and each attack was accompanied by an inflammation of the knee joint. There

are several cases of that kind described. Now the next question is,—granting that there is such a thing—can we make the connection between the gonorrhœa and the rheumatism of the knee joint, or hip joint in a scientific way—can we make the pathology clear to ourselves. I can't see that the simple supposition of a sort of gonorrhœal diathesis brings us any nearer to an understanding, than we are without it. One case that I saw of gonorrhœa, which was followed by rheumatism in the knee joint, was accompanied by swelling of the lymphatic glands on the same side of the body where he had the inflammation of the joint. Now if it can be established that cases of gonorrhœal rheumatism are accompanied by a swelling of the lymphatic glands of the groin, then we are a little nearer to an understanding, and we can begin to understand the process of the disease. I related once before, in this society, that Langenbeck, the greatest surgeon of this age, had seen in his experience, some ten or twelve cases of hip disease, where he was compelled to perform resection of the joint in army officers in which he traced the disease of the joint to a gonorrhœa, the hip joint disease occurring upon a slight accident, a year or perhaps only six months after the gonorrhœa, and he accounted for it in this way, and I think his pathology of it is correct. He found in all these cases, a swelling of the lymphatic glands of the groin. Almost every case of gonorrhœa is accompanied by a slight enlargement at least. It need not be accompanied by the formation of a large bubo. He found that these lymphatic glands were in a state of cheesy degeneration, and from this cheesy degeneration perhaps, a small number of cells—which might be called a tubercle—there was a metastasis into the hip joint, causing cheesy degeneration of the hip joint, now of course, if there is a cheesy degeneration of any joint, the juices of the joint will be destroyed; the forces of nature seem to be very weak when there is a cheesy degeneration in a joint. Langenbeck claims that these cases where they could be traced to gonorrhœa were very severe.

DR. HUGHES.—Mr. President: the point which I wish to make is as to the appropriateness of the term rheumatism in connection with this trouble. It may be conceded that the term is appropriate if we understand, when we say gonorrhœal rheumatism, to mean simply gonorrhœal arthritis and nothing else. While I was at the Marine Hospital it was not uncommon to see

seamen—steamboatmen—in the hospital affected with rheumatism which had gonorrhœa as the exciting cause; but I consider that when rheumatism supervenes, it is because the rheumatic diathesis is there, and because the system has been depressed in consequence of the gonorahœa, and that is the exciting, determining cause. It doesn't do to appeal to anti-rheumatic treatmest in these cases. Our friend, Dr. Fairbrother, appealed to this treatment in vain; but the man got well at Hot Springs. Now, you may say Hot Springs is not anti-rheumatic treatment. It certainly is not anti-gonorrhœal. In this case I should have a suspicion that there was a lurking rheumatism in his system. In regard to Dr. Chancellor's cases; they recovered by the use of salicylic acid and iodide of potassium. Iodide of potassium is one of the best anti-rheumatic remedies we have. And in regard tonics, we know there is no form of disease that yields so readily to tonic treatment, as certain forms of adynamic rheumatism. It is said a large proportion of cases will recover by the use of a generous diet, a change of air and tonic treatment. I think we cannot exclude the hypothesis of a real rheumatic diathesis underlying these cases. The absence of acid in the urine does not indicate the absence of rheumatism or rheumatic irritation. It depends upon whether the amount of rheumatic irritation is great, or general, or not; and it is so far an undecided question whether lactic acid is a cause or a consequence of rheumatic disturbance. No pathologist has been able to determine that question. I am of opinion that it is coincident with, and not a cause of rheumatism. One of the bequests handed down to us by the blood pathologists is, that we must find everything in the blood.

SATURDAY, Feb. 24th., 1883.

DR. MEISENBACH.—Mr. President, I present for your consideration this evening, a case of stricture of the œsophagus. I took the specimen from a patient sixty-two years of age. The following is the history of the case: he complained last April for the first time, of feeling indisposed, and he attributed it to some disorder of the stomach. He passed into the hands of a physician some time during the summer and was treated by him until September, when he first began to have symptoms of rejection of food. He worried along in this condition until the 28th of December, when I saw him for the first time. At this time he was unable to swallow solid food, and retained only portions of liquid which was taken. When taken it would be regurgitated, similar to the way in which milk is sometimes regurgitated by a child when it is taken into the alimentary canal. When I saw him he had lost a great deal of fresh, and was emaciating. I made a careful examination of the abdominal wall and gastric regions. The physician who had seen him before had told him that his trouble was of a cancerous nature—that it was a cancer of the stomach. I found upon a careful examination and percussion no symptoms of infiltration, or of any tumor; the results were totally negative. There was no hardness in any portion of the epigastric region, and I came to the conclusion that the growth, whatever its character must be high up, at or near the cardiac orifice of the stomach. He lingered on until the 22d of January. Two days previous to his death he began to throw up quantities of fecal smelling matter mixed with blood, and he continued to do this up to the time of his death; this was due no doubt, to the rupture of some small vessels in or near the site of the growth. Now, as to the character of the growth, from the appearance of this specimen and from the previous history there is no doubt but it is cancerous in its nature. Strictures about the œsophagus are only of a few kinds among which are those that are congenital, those produced by traumatism, and those produced by neoplasm. Strictures produced by neoplastic growths are those that occur in middle age, never occurring in youth; and in cases where there is stricture before the time of middle age we have a conclusive history either of traumatism or the presence of a foreign body.

There are several sites where stricture of the œsophagus, either by preference, or for some other cause, are wont to occur

according to the analysis by Dr Harrison Allen of a number of cases of this disease. He states that there are two points at which he found it most likely to occur, and this specimen will substantiate his statement as to one of those points. The first of these is opposite the bifurcation of the left bronchus. Then again, we can positively state that this is an epithelial growth for various reasons, but first the character of the growth. Were it of a medullary character or of colloidal nature, the surrounding structures would be much more involved. This is limited in its extent. The questions of interest in these cases are the treatment and the nourishment. The treatment in cancerous stricture of th œsophagus is of course negative. There may be a justifiable reason, when the disease is not clearly defined, for passing the œsophageal bougie; but this is a very risky piece of business, especially if ulceration has already occurred in the growth, because there are numerous cases on record in which the œsophageal sound has been passed, not only into the mediastinum but into the pericardium, producing insanataneous death. Rectal alimentation is a very valuable means of prolonging life. This patient was kept alive during the whole time of my observation, a period of one month, exclusively I might say by rectal alimentation. The amount of liquid nourishment that he swallowed during this time must have been very little. The growth shows that there was not a complete stricture, but there was enough infiltration of tissue to prevent the passage of liquids. As I before stated, it shows that the growth occurs oposite the left bronchus. The specimen shows very nicely the infiltration, and shows also another point which by more careful examination will, I think, leave no doubt in the mind of the examiner of the epithelial character of the growth. Starting with the submucous tissue, I think by a careful examination of this growth you will this condition, which can be very clearly defined; you will find that there are portions of submucous tissue, that are free from infiltration, and as you progress upwards you find this infiltration becomes marked, that there is a gradual increase in the lines. The lungs of this patient were very much darkened, such as we find in habitual smokers. There was fatty degeneration of the walls of the heart. The walls were intact, the liver and kidneys showed signs of degeneration; there was a calcareous deposit in the capsule.

DR. MULHALL.—I would like to present another specimen.

The history of this case will probably not prove so interesting as the one Dr. Meisenbach has presented since this is not so complete, the case having passed from under my observation during the last month of his life. The history of the case is this: Richard W. aged 51, salesman, ten years ago contracted a hard chancre which was followed by secondaries, and he has had occasional slight manifestations since. Three years ago he had something similar to the present illness in New Orleans, which was cured in a few weeks with iodide of potassium. He came to me at the Throat department of the St. Louis Medical College Dispensary on December 29th., 1882. Five weeks before this time he began to suffer with his throat. His first symptom was cough and the ejection of frothy sputa tinged with yellow streaks—as much as a pint daily—the cough was very frequent, much worse at meals and often followed by vomiting. He had pain on swallowing only. Loss of sleep and appetite produced naturally a loss of flesh, so that he was quite emaciated when he came to the dispensary. The nose, pharynx and chest were normal. The lingual sinuses were very deep. The glosso-epiglottic ligaments were thickened, and showed evidence of former disease; the lingual sinuses were as I have said, very deep in this case, which is a point of practical interest. In the last number of the *Archives of Laryngology* there is a case presented in which the patient could swallow neither solid nor liquid food without producing persistent cough. Dr. Chapman, who reports the case, examined him and was at a loss to account for the symptoms until one day he asked him to chew and swallow a piece of beef in his presence. He did so and the doctor examining the larynx immediately afterwards found a piece of the beef lying in one of the lingual sinuses. He removed it with a brush, and the cough ceased immediately. He then investigated the case further and came to the conclusion that at the base of the tongue the parts were greatly atrophied, producing a very deep lingual sinuses. He told the gentleman that all that he could do for him was to instruct him how to clear out his lingual sinuses after taking food. The patient followed the instruction and has always thus relieved himself. This specimen shows a like condition; the result of thickening and contraction of the glosso-epiglottic ligaments. This will account for the unusual severity of the cough at meals. The right half of the larynx was, if anything, paler than normal, and studded over with pale, pinhead granulations. The tissues over the right ary-

tenoid were œdematous. The left half of the larynx congested and swollen, presenting ulceration of the left ventricular band and aryteno-epiglottic ligament. Trachea invisible. On December 29th I put the patient on a mixed anti-syphilitic treatment. I gave tonics and cod-liver oil and treated the larynx locally as well.

Local treatment consists in washing out the larynx thoroughly and then insufflating a powder composed of equal parts of iodoform, tannin and bismuth; this treatment kept him from coughing and gave perfect ease for twenty-four hours. I treated him for some two weeks and a half and as the laryngoscope showed him to be not much better, I had him sent to the City Hospital, where he remained up to Feb. 11th. (He had been in the hospital about a month.) When he died Dr. Dean very kindly preserved his larynx for me. On inquiry of the assistant physicians at the hospital as to the cause of the death, for I cannot see that the larynx was the cause of death, he only replied that the man would not take any food on account of the coughing and the pain that it produced, and that he would only drink milk. No laryngoscopic examination was made. He possibly died of inanition. The gentleman who made the post-mortem did not examine any organ except the larynx. Possibly the cause of death still remains undiscovered. The specimen that I have here shows an old radiating scar at the base of the tongue; the epiglottis is indurated; the ventricular bands on both sides are covered with granular growths, the left one being eroded. The left vocal cord at about the middle presents loss of substance; the right vocal cord is intact. At the junction of the cricoid cartilage with the trachea there is ulceration, and through the first and second tracheal rings perforations opening outside just under the left lobe of the thyroid gland. On the right side I dissected the tissues away overlying the arytenoid cartilage, and I have exposed the crico-arytenoid articulation without, however, discovering traces of disease. The left abductor is atrophied. The fracture of the thyroid cartilage is post-mortem; it is really more bone than cartilage—ossification being more advanced than usual at the age of fifty-one.

DR. LAIDLEY.—At the last meeting Dr. Hughes raised the question as to the advantage of amputation over the resection of the knee joint as exhibited in the case that I presented the night before. There is little difference in the result of these cases so

far as the lives of the patients are concerned; and now the question arises, which is the the most desirable, to have a limb retained as it is in this case, or cut it off. As one gentleman stated, you can not prove much by statistics. There is a great variety of opinions as regards the advantage of one or the other operation. I simply present this gentleman to exhibit the results in this case. The gentleman has a very useful limb. He walks with perfect ease.

Fig. 2. Fig. 3.

Fig. 2. represents the patient before the operation. Fig. 3. represents the results of the operation.

Dr. Prince.—In regard to stricture of the œsophagus, I felt especially interested from the fact that I recently had a case of it; a child from Laclede, Missouri, of the age of two years swallowed a solution of concentrated lye. The result was that very soon there was a stricture of the œsophagus which entirely prevented swallowing of solid food. The child was nourished for two years and a half on liquid food—until it was four and a half

years old. This child would go several days unable to swallow even liquid food. The food swallowed would be retained for a considerable time in the œsophagus and then be rejected. I was encouraged in undertaking an enlargement of the canal in consequence of having ascertained the power of the negative pole of the battery in relieving stricture of the urethra. I think that it has been ascertained that the negative pole of the battery softens cicatrized material, hence the theory of success in my treatment of the stricture by this means making a metallic bougie the negative pole of the battery. An examination of the case showed that the œsophagus was clear of obstruction as low as a point opposite the bifurcation of the trachea. As has been explained in connection with the specimen exhibited to the society, this is one of the points of election of stricture. The treatment was commenced by anæsthetizing the child by the use of alcohol introduced into the rectum by the instrument presented to this society a few weeks ago, and so much ether as was necessary to keep up a fair degree of anæsthesia. There prove to be a disadvantage in the use of alcohol in this case. We used a current of 70 cells, measuring about eight pounds. I might mention that the child had an acute bronchial inflammation, in consequence of which a large amount of mucus was coughed up every day. The first treatment didn't seem to accomplish much, the instrument didn't pass through. The instrument employed was a flexible spiral bougie; flexible and bent to a spiral form with a steel point enclosed in a rubber tube so as to completely conceal it. As the ground seemed to be new I was fearful what the effect of the current on the spinal cord would be; but as the treatment went on without any catastrophe, the use of the instrument became more free. After the first sitting the child was able to swallow better. At the next sitting it was developed that the stricture was a prolonged one. The instrument passed the upper stricture in the lower third and into the stomach. There were six sittings in all, and at the last sittings the bougies were introduced; the bougie used at this sitting being no. 30 of the French scale; in fact several large bougies were introduced side by side. The child was now able to swallow bread and soft solids. At the seventh sitting a bougie of a larger size was employed, and after about ten minutes progress the child gasped two or three times and ceased breathing. Observations were taken and the temperature of the child gradually sank until the case was

given up in despair. Of course this disaster was a great misfortune on the eve of such a grand success in overcoming the contraction of cicatricial material resulting from what was practically a burn. The question arises whether that suspension of respiration was from inertia, or whether from the electric current. It was a pretty strong current, but it had previously made no manifestation of injury. Of course I am not myself decided as to what killed the child; it is quite probable that in some unfortunate manipulation of the instrument the point was carried too high up towards the medulla oblongata interfering with the proper supply of nerve force to the heart.

DR. PORTER.—The report that Dr. Prince makes to us is most interesting, and I was looking for some such result as this; not but what the methods of genius and almost any amount of risk are justifiable in such desperate cases, for even if the patients do not die immediately from the stricture, the life they lead is often worse than death; and yet it seems to me from the very nature —from the relation of the parts—there must be a great deal of danger in the use of almost any instrument in these cases for this reason. After the stricture has been present for awhile, dilatation of the œsophagus takes place above the stricture, and this dilatation is often so great that it will often contain a large amount of liquid, and we are taught by sad experience, some of us, and others by books and precepts, that there is oftentimes danger in the use of probes and œsophageal bougies in such cases; especially are we warned not to use much force because the distension being so great, and the stricture being almost entirely complete in many cases, the probabilities are that we do not enter the stricture at all. I believe often in these cases there is a spasmodic stricture above the point of dilatation, and that we often fancy we have reached the stomach; although careful measurement will often convince us we have not; and generally the instrument carrying the current would rest against the side of the sac rather than against the stricture. I do not mean to say that this would happen in the hands of one so skilled as Dr. Prince, especially if the child were under the influence of an anæsthetic, because a proper appreciation of the amount of force would secure him against great accident, yet it seems to me sir, that by using a powerful galvanic current such as must necessarily be used, that there may have been a perforation of the

wall of the sac. We can't tell. A post-mortem in this case would have been most interesting it seems to me. Certainly if there had been a perforation of the sac it would have reflected no discredit, because in this case the child was better off by being operated on with one chance in a thousand of relief, than to continue as it was. I do not believe in the use of electricity in such cases. It is a powerful agent and while it may do much good it may do much harm. The immediate cause of death was either from a perforation—which may have occurred—or from the powerful current near the heart. And yet we can scarcely say how that could be. Certainly I would not think that the death occurred from the anæsthetic because the electric influence would antagonize the depressing effect of the anæsthetic. I have had a good many strictures to treat, and I have never yet passed a bougie in one that I did not feel a sense of fear—a dread that I should push a little to hard on the bougie, and if it had been armed with electricity I should have been afraid of producing an absorption of the thin wall and producing a perforation of the wall. I do not criticize the treatment of Dr. Prince at all. I couldn't think of doing that, because the child was worse off than if dead.

DR. PRINCE.—I certainly think that this stricture was in the center of the œsophagus because the instrument would pass down and stop, and being manipulated so as to take another direction would pass through. There must have been a shelf formed on which the instrument impinged; and I will say further, that I found it more convenient to introduce the bougie through the nostrils than through the mouth. If passed through the mouth it required some handling and manipulating to get it through; whereas if passed into the nose it would pass directly through. I suppose the stricture must have been very far anteriorly, and if the instrument was carried far back it was enabled to pass the stricture more readily. Now with reference to the force necessary, I have learned by the treatment of the strictures of the urethra, by bougies carrying an electric current, the least possible force is the proper force to use, waiting until the stricture relaxes so that the instrument will pass easily. There is certainly an analogy between the two canals. Stricture of the urethra is an inflammatory result arising from a neoplasm outside the mucous coat; here we have a destruction of membrane and a

cicatricial product. In both cases the obstruction is cicatricial, and reasoning from analogy we may suppose that what will soften the cicatrix in one case will in another. With regard to the danger of the electric current I do not apprehend any danger if the current is introduced low down; but I fear that this catastrophe is an illustration of the danger of the current high up.

DR. DICKINSON.—How much ether was used?

DR. PRINCE.—That cannot be estimated; very little. Alcohol was the chief anæsthetic employed.

DR. WILLIAMS.—I would like to ask the doctor if he treats strictures of the urethra by electricity?

DR. PRINCE.—Yes, sir.

DR. JOHNSTON.—I wish to say that I understand the doctor to say that electricity when applied to cicatricial tissue had the effect of softening it. Is that a fact? Does the application of electricity to cicatricial tissue produce a disorganization of it —does it cause a dissolving process? That is not my idea of the effect of electricity. I do not think it produces fatty degeneration, but my idea of its effect is that electricity paralyzes the nerves and therefore you have what is called a relaxation of the neoplasm—of the cicatricial tissue and not the softening process.

DR. HOLLAND.—I would like to ask the doctor what sort of nerve tissue is contained in the cicatrix?

DR. JOHNSTON.—I think if the doctor will read Rokitanski, Henle and other authors he will find there is plenty of nerve tissue in the cicatrix.

DR. HILL.—I would like to ask Dr. Prince if he has ever applied electricity to an enlarged prostate and if so with what effect?

DR. PRINCE.—I have resorted to it but with no good results; not sufficient to encourage the continuance of the treatment.

DR. LOVE.—I want to say a word in regard to the case of resection and the propriety of the operation; and after having seen the limb again I still insist that if it were mine, taking into consideration the increased danger of the operation and the cumbersome stiff, obtruding leg which you cannot bring down

when you want to, that I would prefer, as I maintained before, to have my leg amputated.

DR. HURT.—In choosing between amputation and resection it seems to me allowable in surgery for the surgeou to pay deference to the choice of the patient himself.

SATURDAY, March 3, 1883.

DR. WILLIAMS.—I have a case which I wish to present, which will take only a few minutes. It is a case of orbital tumor. Now, this is a thing which is confessedly a difficult thing to diagnose. Some eight years ago this lady suddenly felt a pain in the orbit; from that time on, this swelling gradually made its appearance. At times it would fill up quite full, then again it would subside and nearly disappear for a short time, and then return again. Recently it has filled up as you see it, and has this inflammatory appearance. A few days ago it was not red and was not swollen as it is now. Last week there was hardly any swelling in it at all; so that it comes and goes. It is now in a worse condition than I ever saw it. I have satisfied myself that this is a cyst of the orbit, and of course, the diagnosis is an important point in this matter, because it determines the prognosis as well as the proper treatment. My diagnosis in this case is that it is a large cyst of the orbit. I call it a cyst for three principle reasons:

First. The tumor fluctuates, which of course, proves that the contents of the tumor is either fluid or semi-fluid.

Second. The tumor comes and goes, which could hardly be the case if the tumor was solid—if it was a solid tumor.

Third. This tumor has been opened by some physicians in the country, and the contents of the sac were discharged in the form of an albumoid substance, a thick, viscid albumoid substance.

These three reasons confirm the diagnosis, that this is a cyst. The prognosis, I think, is favorable. Of course, there is more risk in an operation on the part of the body so close to the cerebrum as this is; still I take it that the prognosis is favorable. I saw this case last summer, and at that time diagnosed it to be a cyst. I propose to open this cyst quite freely, to-morrow, and wash out the contents and keep it open freely until the sac closes up from the bottom, injecting in the meantime, some kind of

irritant such as we use in causing sacs or cysts to collapse or close up. Now if there is any mistake in the diagnosis, I would like to know it. The gentlemen can satisfy themselves in regard to the matter, by making the examination, and remember that these parts are tender; they are sore, so be kind enough to touch it lightly so as not to hurt it. I will say that the eyeball is perhaps out of position, forwards and downwards, but is in good condition and uninjured.

DR. POLLAK.—I am inclined to think this is an encysted tumor, in which the sac is ususlly very solid, very fibrous, supporting a lining membrane which secretes a fluid; after this has been punctured or irritated frequently, it becomes inflamed. I heard one gentleman say that glioma probably emenated from the sheath of the optic nerve. I must differ with him in toto; it is utterly impossible for such a tumor to rest against the optic nerve without causing absolute blindness. The smallest pressure on the optic nerve, sometimes not more than a single drop of serum, will cause blindness. Such a tumor as this, if connected with the optic nerve, would cause blindness. I think the tumor is not malignant: That it is benign. If the Doctor carries out the treatment that he has suggested, I feel sure that he will get good results, if he succeeds in removing the sac and evacuating the contents of the cyst.

DR. DICKINSON.—I understand that Dr. Bernays saw this case last summer, perhaps he will kindly give what he knows of the history.

DR. BERNAYS.—The patient that we have before us came to my office a year ago, from little Rock, and asked me to make an examination of the tumor; and asked me the question, whether it could be removed or not. At that time the bulb was displaced much less than it is now, and it looked like a case of exopthalmus. Upon examination I discovered a round, slightly movable tumor, about equal in bulk to a hickory nut. She said she had been to several doctors, and that they had told her nothing could be done. My opinion was, and I told her that I might be able to reach the tumor if it did not extend too far back in the orbit. It does extend away back now, as will be found when it is removed. I have seen Baker perform the operation in Heidelberg, successfully; although the optic nerve may be stretched considerably, the eye protruding very much, the bulb will recede

and get into its place, after the tumor is removed. The tumor, I think, is a glioma, and I think a microscope will show that it is a glioma. The proper thing to do now would be to remove the eye, the whole of the bulb, and remove also parts of the bone from which it started. I think now, probably it started from the periosteum. At the first examination, I thought it started from the sheath of the optic nerve; either of those two places are favorite sites for the origin of mixomata or gliomata, and it is not possible to diagnose between them without the microscope. We know that gliomata occur chiefly in the orbit and in the nervous system also, upon the nerves themselves—on the sciatic nerve. Mixomata, on the contrary, occur principally about the hip, on the femur; however, they have also been known to occur about the orbit. If the woman asked my advice, now I would certainly recommend a very radical operation or none at all.

DR. DICKINSON.—I cannot agree with the opinion of the last speaker. I don't think it is a glioma; its history, its progress doesn't indicate to my mind that it is a glioma; what it is, I don't know; I should hesitate to give a positive opinion about it. I don't see any risk in operating as the Doctor proposes, and ascertaining its nature after the incision has been made. I say its history does indicate glioma. The glioma is aggressive throughout; The Doctor very properly says that the usual site of origin is within the globe, but it has been found in various parts, and even in the lens. The age of the patient seems to me to miliate against a glioma. It is rarely that we find it in the adult; the oldest case that I remember of having seen, was in a patient thirteen years of age. I think there are some on record, in which the patient was older, still she has suffered a long time, and it is time that something decisive should be done. When I first saw this case at a distance, it reminded me of a case I saw last summer, which presented an appearance very similar, but in that case the exopthalmus was produced by an osseous growth.

DR. BERNAYS.—Not being a specialist in this line, I would suggest that Dr. Green, who examined the case at the same time I did, could probably help to clear up the matter. I am almost certain that it is a malignant tumor, and that he thought so at the time he examined it.

DR. POLLAK.—I would like to ask Dr. Bernays if he ever saw

glioma in the eye that there was no blindness? I never heard of such a thing—I never saw such an instance in my life.

DR. BERNAYS.—I rise to make an explanation. There are cases of the kind. I saw a case of glioma, removed one myself which was attached to the outside of the sheath by adventitious tissue, connective tissue of the sheath of the optic nerve, and had nothing to do with the nerve part of the optic nerve.

DR. MULHALL.—I have been announced to read a paper on the subject of hæmorrhage in connection with malaria. That is a misapprehension. I stated at the last meeting, that I would offer as the subject for discussion, that subject based upon clinical cases. I would like to have read a paper on the subject, but its very obscurity convinced me that it would require very extensive biblio-graphical research, the facilities for which did not exist in St. Louis. I will give a statement of some cases of hæmoptysis and epistaxis, for relief from which the patients applied to me. The first case was a lady who was sent to me, who applied for relief from hæmoptysis. Before coming to me she had been spitting blood for about four or five months, not at regular intervals; the intervals averaged perhaps ten days. There was never any profuse hæmorrhage; it was always in small quantities, and sometimes mixed with frothy sputa, generally erated. She said that her nose had bled, at intervals, for four or five months. During this time her nose bled for two days at one time, five days at another, and three days at the third; the hæmorrhage from the nose was bilateral, was never rapid in its action, but was on the contrary, an oozing, so she did not lose very much blood. It would bleed a drop at a time, and very slowly. I inquired into her family history and found no family or personal history of gland or lung trouble. She stated that she went to Arkansas in the fall of 1879, I think, somewhere in the neighborhood of Little Rock, and soon acquired the ague. That was in 1879. She says the paroxysms were broken up with whisky and quinine; but after awhile she relapsed into chronic malaria, the quinine gradually lost its effect, and when she came to me in the spring of 1882, she had a regular Arkansas complication. Her system was saturated with malaria; skin was yellow and she was somewhat emaciated and there were a number of bleeding points at different parts of the body. I examined her very carefully with negative results. Taking her family history into

consideration and the fact that before the attack of malaria, she had never suffered with hæmorrhages, I gave as my opinion that very likely if the malarial disorder was cured, the hæmorrhages would cease. I gave her iodide before meals, ten drops; four drops of Fowler's solution three times a day, and allowed her to drink Hunyadi Janos water and kept the bowels gently open. During these three months she bled three times, and I then put her on the anti-malarial treatment, such as iron, quinine, arsenic. She improved under this treatment and left the city. I have heard from her since, and she stated that she had recovered her health perfectly.

The second case was that of a man named George H., who lived in Carondelet. He was a fireman on the railroad, and applied at the throat department of the St. Louis Medical College dispensary, May 25, 1882, for relief for bleeding at the nose. He told me his nose had been bleeding for a week. His family, as well as his personal history, gave no indication of gland or lung trouble. I examined his nose and found that the anterior nares half way down the pharynx was covered with a black crust of blood and I thought it was a rather strange thing. He was then a healthy man with a good family history, and I thought it strange that he should be suffering from hæmorrhage—this blood oozing. In order to invesigate further, I made the man strip to the waist and upon looking at the skin, I found quite a number of ecchymosis, and the question was asked if a slight injury would not produce ecchymosis; I said yes, and I remember that several of the students gave him several light taps on the arm in order to see if it would produce bleeding in the subcutaneous tissue, and we afterwards saw that there were several small marks of subcutaneous bleeding. He said that eighteen months before, he had been the victim of intermittent fever, which had lapsed into chronic malaria afterwards, but that he had never had any bleeding from any part of the body until six months before. When he applied to me he had bleeding of the nose, he told me he had lost blood by the bowels; and that the scratch of a pin, or a slight injury produced serious bleeding. He was rather pale and anæmic. I thought that probably he might have Bright's disease, and I examined his urine but found nothing there. I then put him upon anti-malarial treatment—large doses of quinine. He came back in a week and said he felt better. He then disappeared and I did not see him for two weeks, when

he came to the dispensary because his nose was bleeding again, and he also had bleeding of the gums, without any laceration or appearance of solution of continuity; there were also on the hard and soft palates, numerous apunctiform hæmorrhagic spots. I asked him if he had been suffering with fever and chills, and he told me that he had been suffering with it again. He said that since I had seen him last, he got very much better, in fact, he considered himself well; he had no hæmorrhages whatever; his color returned and he was able to go about. I instituted the same treatment again. This man evidently had a regular hæmorrhagic diathesis; he was liable to bleed from any portion of the body. Now, the question that presented itself to me was whether the malaria might not produce this effect. In the first case the effect was milder, but in the second case the trouble was general. I have no theory by which to explain the trouble, but with the permission of the society, will read something from a pamphlet read by Dr. Stephen Mckenzie, before the Hunterian Society, in 1877, on the subject of "Retinal Hæmorrhages and Melanæmia as Symptoms of Ague." He says:

"Retinal hæmorrhages, (or retinitis, as the condition would be described by many ophthalmic writers) so far as I am aware, have not been noticed specially in connection with ague. In fact, the observations recorded of the condition of the retina in malarial disorders, are few in number. Dr. Hammond, in a paper published in the Transactions of the American Neurological Society, in 1875, on 'Pigmentary Deposits in the Brain, Resulting from Malarial Poisoning,' has described ophthalmoscopical alterations from melanæmia, the result of malarial poisoning.' In one case Dr. Hammond says, 'Upon examining the fundus of the eye with the ophthalmoscope, I found double optic neuritis, worse on the left side than on the right, and large deposits of pigment in both retinæ, especially the left. These masses were stellate in form and followed, mainly the course of the arterial branches. I then punctured tha spleen and drew off a few drops of blood. Examined by the microscope, it was found to contain a large quantity of free pigment holding cells. Prof. Roosa examined this patient and confirmed Dr. Hammond's observations as to the ophthalmoscopic appearances.' Of another case of malaria with choreic symptoms, Dr. Hammond says: 'On examining the eyes with the ophthalmoscope, I found numereus deposits of pigment, stellate form, along the course of

the arterial branches on both sides." And of another case he says, "There was no abnormal ophthalmoscopic appearance beyond choked disc on both sides." Dr. Hammond does not appear to have observed retinal extravasations in his cases.

["Since reading the paper I find that M. X. Galezowiski, under the head of 'Affections de la Retina du Berf Optique dans la Fievre Palustre' at page 190 of his 'Traite Iconographique d'Ophthalimoscopie' (Paris, Balliere et Fils, 1876) has described the occurrence of retinal extravasations in connection with ague. He writes: 'The accidents which occur in the different forms are proportionate to the gravity of the malarial diathesis. In the common form we have distinguished a kind of apoplectic and exudative retinitis with peripapillary serous infiltration, which yields readily to anti-periodic treatment. To give an example which we observed with our disiinguished friend and colleague Dr. Noel Gueneau de Mussy. A schoolboy was siezed with violent headache and intense fever, some days later he complained of defective sight, and on examining him with the ophthalmoscope we found double neuro-retinitis with multiple hæmorrhages. After an emetic the desease presented all the characters of a tertian ague, and later fifty-centigrame doses of sulphate of quinine administered for some days produced a cure both of the fever and of the neuro-retinitis.' M. Galezowisik also mentions atrophy of the papilla and marked diminution of the central vessels in cases of chronic malarial poisoning."]

"But whilst hæmorrhages into the retina do not appear to have attracted attention in connection with malaria, hæmorrhages into the brain and its membranes have been described by most writers on the anatomy of the disease. Freirichs states that obstruction of the capillaries by pigment and fibrinous-like coagula leads to the formation of many capillary apoplexies. He states that Planer described eight cases in which small extravasations were scattered through the grey and white substance of the brain. He adds: 'These numerous hæmorrhages have not come under my own observation, but in two cases I have observed extravasations into the meninges.' Further on he writes: 'I have seen paralysis make its appearance suddenly, and here capillary hæmorrhage was found.' Niemeyer says: 'In autopsies of persons who have died of pernicious intermittents we often found signs of melanæmia, and occasionally remains of inflammative effusions of blood, or excessive hyperæ-

mia in different organs.' Hertz in his exhaustive monograph on 'Malarial Diseases' mentions 'numerous punctiform extravasations which have been thought to depend on blocking up of the capillaries by means of pigment matter, and represent capillary aneurisms.' Wagner also mentions that capillary hæmorrhages have been found in the brain in connection with malarial melanæmia, and also in cases of malarial poisoning without melanæmia."

"It would therefore appear that hæmorrhages into nervous structure are not unfrequently met with in fatal cases of malarial disease. The hæmorrhages are not confined to these parts, however. Hertz states that ecchymoses are found in the endocardium and pericardium, and small hæmorrhages have been found in the heart muscle. The liver is sometimes found studded with apoplectic spots, and the mucous membrane of the stomach and intestines has been found ecchymotic."

"But besides these post-mortem appearances, hæmorrhages are not at all uncommon during life, and in non-fatal cases. Intermittent hermaturia is a well-known malarial affection. Hertz writes: 'Hæmorrhages from the nose are frequent.' (This is interesting, as epitaxis is common in the form of Bright's disease which is commonly attended with retinal apoplexies.) 'Those from the female genitals or from the stomach and bowels, rare; petechia appear upon the skin, and a scorbitic condition is sometimes developed about the gums.' Dr. Sinclair has recorded a very interesting case in which intermittent epistaxis appeared to be due to malarial influence and yielded to antimalarial treatment. Surgeon-Major Porter read a paper last year at the royal Medical and Chirurgical Society on 'Recurrent Hæmorrhage' from the amputated stump of a patient who had formerly suffered from malarial affection. Each attack of hæmorrhage was ushered in by a cold and hot stage resembling ague."

"It will be seen that the majority of, though not all, writers who have described hæmorrhages into the brain and other organs have been inclined to attribute them to the melanæmia which has been so frequently observed in association with them. It has been held that the pigment cells, by blocking capillaries, lead to fluxionary extravasations or rupture. The retinal hæmorrhages observed in the case of ague I have narrated might, therefore, be naturally referred to the melanæmia which cöexisted. I very much doubt, however, whether we should be

justified in concluding that there was any direct or necessary connection between the two. This point—the stage or severity of the disease—appears to me to be of importance in determining hæmorrhages for it will be seen that the three cases in which hæmorrhages were noticed, in the two in which the hæmorrhages were well marked the ague was of the quotidian type; in the other case, in which there was only one small hæmorrhage, the ague was tertian. In the ship-mate of the two patients at Greenwich, who had no hæmorrhage the ague was irregular. Moreover the other cases examined by Mr. Atkinson, and found to be free from hæmorrhages, were patients about to be discharged cured from the hospital. In the few chronic malarial cases I have examined I could find no extravasations. If, therefore, retinal hæmorrhages are at all frequent concomitants of ague it would seem that they may be expected to be found in the early stages of the affection, when the disease is most active, and the paroxysms occur at short intervals."

"It should be stated that none of the patients in whose eyes I have found hæmorrhages complained of loss of sight or any occular trouble. This shows the importance of the routine use of the ophthalmoscope in medicine, as so strongly insisted on by my colleague Dr. Hullings-Jackson. In Galezowiski's case it will be observed there was defective sight"

"As to the cause of the retinal hæmorrhages, I should conjecturally refer it to an altered condition of the blood. Retinal hemorrhages are found in pernicious anæmia, leukæmia, perpura, diabetes, and several other diseases characterized by alterations in the blood."

"It is an interesting fact that retinal hæmorrhages have been described by Roth in pyæmia, a disease which shares with ague, more almost than any other, profound alterations in the blood and repeated rigors."

"Retinal hæmorrhages in connection with ague may be much less frequent than would appear from the cases that I have brought under the notice of the society. I hope I shall not be thought to overestimate their importance, or to generalize from one or two chance cases. I merely wish to call attention to the fact that they have been observed in three cases, and would ask those who have an opportunity to examine with the ophthalmoscope the eyes of patients suffering from ague. Should hæmorrhage be found of frequent occurrence, they may in doubtful

cases have diagnostic value, as have the intraocular changes in Bright's desease and diabetes."

DR. A. GREEN.—Malaria may give rise to hæmorrhage, especially hæmorrhages from mucous membranes. I have had under treatment a good many such cases; some had bleeding from the nose, some from the female genital organs and so on, which I recognized as being of malarial origin. I treated them accordingly and they got well. I think almost every physician who has been practicing for some time has had more or less experience of this kind; it is nothing new. There is one thing that I do subscribe to: that is that the hæmorrhage diathesis is an hereditary disease. We have whole families of bleeders, Mr. President. There is a bleeding which we meet with in certain persons which we can trace back to the family history. The most interesting point about it I think is that the male offspring are more exposed to it than the female; so much so that it will attack males in the proportion of about twelve males to one female. Then again the spreading of diathesis is done mostly if not altogether by the women; that is by the mother and not by the father. It is very seldom that if a man with a hæmorrhagic diathesis marries a healthy woman that his children will have the disease. He does sometimes, but there is no rule without exception; but if the mother comes of a family in which there exists the hæmorragic diathesis, although she herself escapes the disease it is almost sure to affect her offspring, especially the female offspring. And then again sometimes the disease will miss one generation altogether and attack the next generation. But you may take it for granted that the hæmorrhagic diathesis is an hereditary disease. Now these bleeders may go for a number of years without any indication of the trouble, but as soon as any poison affects the system it may give rise to this bleeding. In the case Dr. Mulhall speaks of we cannot say that the man had a hæmorrhagic diathesis from the malarial fever simply because he had ecchymosis under the skin.

DR. MULHALL.—I was announced to read a paper on the hæmorrhagic diathesis; now if I had been called upon to give a distinctive title to my remarks I would have given: "Hæmorrhages in Connection with Malarial Fever." There is a tendency among the members to wander off on something else besides the subject of the paper or subject under discussion. I

didn't purpose to speak of the hæmorrhagic diathesis, but simply hæmorrhage in connection with malaria.

DR. BERNAYS.—I only want to say a few words in regard to this subject. I have been very much interested with Dr. Mulhall's remarks and sentiments. I think his idea is eminently correct. I think that we in this country who have had cases of chronic malaria on hand all the time ought to be the persons to decide whether chronic malaria produces the hœmorrhagic diathesis or not. Hæmorrhagic diathesis means a tendency to the rupture of small blood vessels and capillaries, causing hæmorrhage, and these cases often continue a long time, because the blood is so thin and has lost so much of its fibrine, that coagulation of the blood will not take place readily. We know that coagulation of the blood depends on a certain kind of fibrine that is in the blood which causes the coagulation. That is the subject of a paper that received the prize, it was by Alexander Schimdt. He was the first one to undertake to account for the coagulation of the blood in a scientific manner. I think the doctor's position is correct; I think I have seen cases of chronic malaria where the blood was in such a condition that it would ooze through the coats of the blood-vessels and, of course, there was a great tendency to hæmorrhage. I don't think the speaker tried to convey the idea that hemorrhagic maculosus was caused by malaria. I think Dr. Green misunderstood him.

DR. ATWOOD.—I didn't suppose that any such controversy as this would arise. I supposed that we in the Mississippi Valley all recognized the fact that hæmorrhages are sometimes dependent upon chronic malarial fever. It is not confined to malarial fever, however. It is seen in several types in the plague, in cholera, it is seen in death by lightning, it is seen by the impression of a powerful mental shock, it is seen in the ligation of the femoral artery in inferior animals. It is not dependent on the non-coagulability of the fibrine of the blood or by the rupture of the minute blood-vessels and capillaries as Dr. Bernays says, but it exudes through the walls of the blood-vessels owing to the relaxed condition of the part. There was a theory at one time that purpura hæmorrhagica was dependent upon a defective state of the middle coat of the blood-vessels, but nobody believes that any longer. But it is caused by the defective, relaxed condition of the coat of the blood-vessels which

permit the blood to escape through them. Now, with regard to hæmorrhage being independent of the malaria, anyone who has had much experience in the treatment of malaria must, as a matter of course, have seen a great many patients who have had hæmorrhages—slight hæmorrhages from the bowels. In all these cases, so far as my experience goes, in almost every instance the patient has stated that he feels much better, and wishes to put on his clothes and go out, and in a few hours, or almost immediately, has a hæmorrhage — sometimes a very profuse one — as much as a chamberful of blood would pass and the patient would almost be brought to death's door. In regard to the case which Dr. Mulhall reports in which there was hæmorrhage from the nose, I will say that this is the most ordinary site from which the hæmorrhage occurs. We almost always have it in connection with the ague. I don't think there is any doubt about the correctness of Dr. Mulhall's view.

Dr. Fairbrother.—It is always interesting to connect one fact with another—symptoms with their causes. It would be interesting in connection with the paper which has been read to-night—it would be an interesting matter if in cases of purpura hæmorrhagic diathesis we could refer them to a relaxed condition of the vascular system, the result of a profound impression produced on the vaso-motor system, but as it takes more than one swallow to make spring, so it takes more than two cases to established a theory or a presumption. While hearing the reading of the paper I ran over as far as my memory enabled me all the cases relative to the hæmorrhagic diathesis that have come under my observation within the last eleven years, and so far I cannot remember one of them in connection with a malarial case; and yet, as most of you are aware, my experience with malaria has been more or less extensive; and further it has occurred to me on the contrary, that there is a tendency in malarial conditions of the system—that is in the condition which we generally understand as malarious, although that is the scapegoat for a vast amount of ignorance, and it would be a pity if we here to-night saddle upon it anything more—but I was about to say that in conditions of malarial poisoning I have been inclined to think that the tendency to hæmorrhage was lessening. I can certainly remember some cases of abortion in patients who were suffering with malarial fever, and there was scarcely any bleeding; I

remember, also, a case of uterine hæmorrhage—a tendency to uterine hœmorrhage that stopped during the existence of the malarial affection; it has occurred to all of you no doubt in cases of malarial fever in females that there has been a cessation of the menses during the attack of malaria, and for months afterwards until the blood was re-established.

DR. SCOTT.—In connection with this discussion of malarial poison and hæmorrhage I would like to report a case or two that occurred in my practice. In September I was called to see a gentleman in fine health, and whose family is healthy—all healthy people,—when I say he was in fine health I mean that there is no hereditary tendency to disease of any kind in his family, of course he was not well when I was called to see him. I found he had what is called typho-malarial fever. It was rather of a slow form,—more typhoid than anything else—I would almost call it typhoid fever. He went along until the 26th, day nothing unusual occurring; on the 26th, day he was able to be up, and got out of bed and walked into the adjoining room upon the arm of an assistant. His temperature had been very high; his pulse was 100; his temperature was at times 107°, but had gone down and was almost normal. On the morning of that day I saw him and he seemed to be comfortable. I called to see him again in the evening, as I was in the habit of making two visits a day, and found his temperature was 105 and 7-10° and his pulse over 100; here was a sudden increase of temperature and a rise in the pulse for which I could not account. I could not understand why this was the case; I realized that I had some enemy to deal with, that there was lurking mischief some where. Realizing the fact that one of the most serious complications which we are apt to have in malarial fever is some implication of the lungs—bronchitis, pneumonitis etc, I gave the patient a thorough examination. I found no trouble in the lungs and I then turned my attention to the abdomen and examined it very carefully, recognizing the fact that in these cases we frequently have ulceration. I examined him very carefully to see if there might not be some point of tenderness somewhere about the abdomen; I found none. Over the right iliac fossa there was a slight indication of pain on pressure, but not more than we find in ordinary cases. I was now completely nonplussed. I did not know what to do. I felt certain that there was something wrong somewhere that would

develop itself. I gave the patient something to quiet him during the night and left him. The next morning I was called to his bed-side in a very great hurry and found that during the night he had had an enormous hæmorrhage from the bowels; as many as four large chamberfuls had been carried away from him. I immediately put the patient on ergot and iron. I called in the afternoon and found that he had no more discharges of blood from the bowels, but that he had had a slight epistaxis. I plugged his nostrils and again visited him late in the evening. There had been no more hæmorrhage from the nose. I still kept the patient on ergot and iron. Knowing that these hæmorrhages are more apt to occur at night than at any other time, I directed that in case the hæmorrhage came on, my friend, Dr. Prewitt should be called in, the doctor living in his neighborhood. I then called on Dr. Prewitt, and asked him if he would call and plug the man's nose in case hæmorrhages came on. During the night the hæmorrhage came on, and Dr. Prewitt was called and plugged his nose. When I called the next morning the doctor had visited the patient, and I found that the blood was oozing from the patients nostrils; and we found that there were large blood blisters under the clavicle, over the chest and abdomen—he was covered with epistasillary spots, and not only was that the case but he had hæmorrhage into the conjunctiva, so that it will be seen that his whole blood was completely, thoroughly poisoned. I abandoned the ergot and iron now; the hæmorrhage of the bowels had ceased; and tried a remedy which I had used in the treatment of malaria in my country practice long ago—I had long since learned that it was one of the best hæmostatics that I had used; it is spirits of turpentine. I put the patient on turpentine. He had one or two hæmorrhages from the nostrils after this. I kept the patient on spirits of turpentine, increasing the dose. I gave at first 15 or 20 drops and I increased it to 30 drops every three hours; and I will say that the best way of giving turpentine is in a capsule—not having it put up at the drug-store—but putting it in the capsule just before giving it to the patient. Well, I put the patient upon this treatment, giving him a supporting diet; and I am pleased to say, that although my patient was reduced to Death's door, and several of my brother physicians said that he was bound to die—that there was no hope at all and indeed there was no reasonable hope for him—yet he did make a recovery and is doing well. At the same time I was

attending this young gentleman I had two other cases on hand. One a young man who had malarial fever, had an enormous hæmorrhage from his bowels, but there was none of the hæmorrhage under the skin in his case; at the same time I was treating another gentleman on Madison street, 60 years of age, who had malarial fever; he also had some hæmorrhages from the bowels. I put all these cases on the spirits of turpentine, and they all got well. I think the hœmorrhages were dependent upon the malarial fever.

ARTICLE XLI.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

[Reported for the JOURNAL.]

THURSDAY EVENING, Jan. 25th, 1883.

The President, DR. JAS. TYSON, in the chair.

The Morphiology of Pulmonary Phthisis, by Dr. Edward T. Bruen.

I have been requested by the committee on arrangement to present some considerations bearing upon the pathological anatomy of phthisis, as a basis for the discussion of the subject before the society. The etiology of phthisis is very properly exciting careful attention at present, but the subject is in a far too unsettled condition to permit even a useful discussion. I shall not therefore allude to it, and I feel that I must offer an apology for the triteness of the subject matter of my paper, but I was informed that it was designed to have a series of discussions upon familiar pathological conditions. With this understanding my scruples have been overcome. A consideration of special interest seems to me to be connected with the morphiology of primary tubercle. In certain individuals owing to inherited tendency, or particularly unfavorable surroundings, recovery after bronchitis due to cold, is retarded, or a susceptibility to a new bronchitis is increased. In either case lingering catarrh in the majority of instances is the inception of the series of pathological processes known as phthisis pulmonalis. Two

microscopical appearances nearly identical occur, but they differ materially in their microscopic anatomy. Certain so-called miliary tubercles are frequently composed of the inflammatory products of connective tissue, without the characteristics true to tubercular arrangement. The word miliary, expresses their appearances, but the inflammatory products may be so arranged as to represent true tubercle, pseudo-tubercle or a diffuse inflammation. This tubercle or pseudo-tubercle is constant in the different forms of phthisis in the adult, except in the instance of pure interstitial pneumonia. Frequently the amount of tubercle tissue in the lungs is so great as to form the principle part of the process, although complicating inflammatory cheesy products are also present.

Classification of phthisis.—The term tubercular peri-bronchitis is probably the best for the earliest stage of phthisis, and sometimes is the best to designate the process all the way through. The appearance of the peri-bronchial tissues resembles berries on a stalk. The formation extends along the bronchi, spreading from a cinus to a cinus until the trunk is reached, and is also distributed in the sheaths of vessels and lymphatics. True tubercle may penetrate a bronchus and involve the lining membrane, and a true tuberculous ulcer may form the basis of an extensive associated bronchitis. Aside from this, these infiltrations excite inter-lobular connective tissue growth, and subsequently the walls of the vesicles become thickened, and some vesicular catarrh ensues which may occlude a lobule. Thus the three divisions of the pulmonary tissue show in the pathological process of early phthisis. The cause of more than nineteen twentieths of vesicular consolidation is the result of a process of desquamative pneumonia. This term is used to describe the diffuse inflamation, which may accompany the former process, and which more than the other changes paves the way for the disintegration of the lung. In this process the peripheal epithelial cells of the bronchi are proliferated and shed, thus filling the bronchi and infundibula, while the surrounding connective tissue becomes infiltrated with cells. In children this process is a common one on account of the greater cellular activity in these subjects. In the desquamative catarrhal pneumonia of early life the process differs from the desquamative pneumonias of adults in that the air cells only are filled, and there is little or no change in the intervesicular tissue. Hence

it is that rocovery is so much the more frequent in children then in adults. This process of desquamative catarrh is the base of those cases of acutely developed phthisis which follow croupous or catarrhal pneumonia, and which has been called acute catarrhal phthisis or galloping consumption—sometimes pneumonia phthisis. When the pathological process just described is less rapid the result which follows has been classed by some as acute casious pneumonia. When the changes are still more slowly developed it is synonomous with the chronic catarrhal pneumonia. The relative developement then of these processes known as phthisis in the three divisions of the pulmonary tissues, the bronchial, the inter-lobular and the vesicular is denominated by the activity of the inflamatory process. Peri-bronchitis with consecutive changes in the latent forms, desquamative pneumonia in the more acute forms. While a process presently to be alluded to—interstitial phthisis—occurs as a very slowly developed change. In many of these cases when the destruction of the lung is very rapid the tubercular deposition, true or pseudo, occurs in early stages, but is masked in the later by the developement of the secondary inflamatory desquamative pneumonic processes. The situation at which phthisis is developed is probably most frequently the apex. The forces of expiration presumably are least efficient at this site, and the lungs are less entirely freed from mucous. The circulation also is less than at the roots, and the products of inflamation are therefore more dry. The roots of the lungs, however, in a large majority of cases, are primarily affected. This is especially true of cases in which the original processes of invasion are latent. I pause here to observe a clinical point of some interest, viz: that when the area of lung involved in the process of phthisis, is distinctly limited and does not shade off gradually into healthy lung, my opinion is that a favorable result may be very possible. Certainly I have seen the process of phthisis arrested even when it had passed into the stage of cavity when the lesions were sharply defined. The localization of a lesion, other things being equal, is a point of favorable prognosis. Another topic of interest is the share taken by pleurisy in the developement of phthisis. A specimen already exhibited before the society, is again shown to-night. It is taken from a colored man, seventy years old with a family history free trom the taint of pulmonary disease. He was tapped

five times for the relief of hydrothorax due to heart failure. Each paracentisis was followed by an exacerbation of pleurisy. Nine months after the first operation death occurred from an increase of hydrothorax. The autopsy disclosed general miliary tuberculosis of the pleura and secondary deposits in the viscera. Throughout the parenchyma of the lung, adjacent to the pleura, there was copious deposit of tubercles, but the other parts of the lungs were normal. Another specimen exhibits the same tendency, viz: general pleurisy with phthisis and cheesy deposit in the pulmonary parenchyma, with cavities. The deposits are most abundant near the pleural surface of the lung, the deeper parts evidencing a more recent date of formation. These specimens show that pleurisy may give origin to the tuberculosus inflammation. But while this is true it is conceeded by all that dry pleurisy is a frequent secondary lesion in the process of pulmonary tuberculosis. Pleurisy is, however, in many cases very conservative, since by the thickening and adhesion of the pleural surfaces, the ulceration of the walls of superficial cavities is arrested pneumothorax is prevented. Interstitial phthisis or cirrhosis is a process in which true or pseudo tubercle may or may not be associated. The pulmonary tissues are traversed by narrow bands of connective tissue which may gradually compress it more and more, finally converting it into dense fibrous masses. The color of the lung is apt to be slaty and dark. However, in some cases of Interstitial Phthisis patches of the peri-bronchial and desquamative pneumonia may be found with cheesy degeneration. Intersticial formation is an important part of the process by which cavities are enclosed and sometimes cicatrized.

Distribution; Interstitial phthisis, if consecutive to bronchitis, is usually bylateral affecting the upper lobes, although as a unilateral affection it is not infrequent Syphilitic Phthisis. It is of interest to note in this connection that the early lesions of the syphilitic phthisis, so-called, are evoked very often by bronchial catarrhal inflamation, which predisposes to structural changes. In these cases there is a principal intersticial fibro-neucleus growth commencing in the alveola wall and concentrically arranged around the smallest bronchi and pulmonary vessels. Wagner maintains that the alveola wall is implicated, as commonly in syphilis as in ordinary phthisis. Bronchial narrowing occurs in these cases, by the pressure of the new

growth which developes along their lumen. Bronchial occlusion may occur from this new formation but it is also caused by the enlarged bronchial glands, one of the effects of syphilis. By this means serious mischief in the lungs may be developed, in kind proportion to the degree of distinction, such as atelectasis, emphysema, and certain forms of pneumonia. Green and Vichou suggest that the origin of syphilitic diseases of the lung is distinctive in this respect, that while in ordinary phthisis the fibroid is secondary or co-equal in its developement with changes in the alveoli and alveola wall; in syphilis there are primarily principle interstitial changes. Later when entire vesicular consolidation and breaking-down occurs, the process is similar to ordinary phthisis and indestinguishable from it. The vascularity of the new growth of connective tissue is also claimed to be a distinctive characteristic of the inflammatory proliferation due to syphilis. But we must remember in any discussion of early syphilitic lung disease; that the one special and characteristic lesion of syphilis is the change in the blood vessels. This has not yet been demonstrated in the lung, but merely the general thickening of the external coat of the vessels. In the effect of the instertitial processes upon the bronchial tubes the syphilitic differs from the non-specific disease. The tough contracting fibrous tissue which radiates through the lung draws together the bronchial tubes and deforms by narrowing or flattening them, possibly even to obliteration. On the contrary in the forms of non-syphalitih fibroid phthisis the bronchial tissues are widened. The process proceeds in syphilis from the hilus into the interior of the lung, following the tract of the bronchial radicals and the bronchial arteries. The lesions also occur on the surface, near the visceral pleura, where there is also more connective tissue. Gummata occurs as a later process. Time will not allow me to allude to these as I should like. A demonstration of the pathology of phthisis, would be incomplete without concluding some cases of true miliary tuberculosis. This process may be primary in the lungs or secondary as a part of the general infiltration of the serous and mucous membranes, the lymphatic glands and the viscera. This form of tubercle is characteristically recognizable only in the miliary stage. Its appearance as a number of small, hard, translucent nodules is too familiar to need description. A specimen on the table illustrates an extensive lymphangitis of the pulmonary pleura,

forming a network over the pleura. The process microscopically, shows a dense tissue in nodular form. Similar cases have been described before the London Pathologioal Society in 1880.

Enlargement of the Bronchial Glands.—Another important part of the phthisical process is the enlargement of the bronchial glands. They present a firm, pigmented character and the connective tissue is usually infiltrated. I have observed in many cases in individuals suffering from temporary catarrhal conditions of the bronchial mucous membrane, especially when there is a family history of inherited phthisis, but particularly distinctive scrofulous persons, a set of symptoms referable to enlargement of these glands. These symptoms consist chiefly in the alteration of the rhythm of the breathing, presumably from pneumogastric irritation is apparent inability to fill the chest with air and a sense of suffocation is complained of. Added to these there is pain in the back to the right or the left of the second dorsal vertebra. Further detail of the clinical ensemble would carry one away from the pathology of the subject. When the enlargement of the bronchial glands is excessive it may occasion severe mediastinal pressure and pain becomes an important clinical symptom, and is of the sort occasioned by mediastinal growth generally. To detect this enlargement during life Guineau de Mussy has suggested percussion over the spinous processes of the cervicle vertebra in the course of the trachea. Following this line in healthy subjects a distinct tubular sound is elicited by percussion down to the point of bifurcation of the trachea; at the level of, and opposite the fifth and downwards we get the lower pitch and pulmonary resonance.

When the trachial or bronchial glands are enlarged, the tubular sound over the upper dorsal vertebrae is replaced by dullness, which may contrast sharply above with the tracheal, and below with the vesicular resonance. The result of bronchial pressure upon the pulmonary tissues is best marked when the processes of phthisis are not too extensive, also in interstitial phthisis, or in cases where there is marked bronchial complication. In these cases the lumen of the bronchi are seriously diminished, and vescicular air supply is interfered with; consequently, emphysema with or without asthma atelectasis or a very intractable bronchitis may occur. I will not describe the morbid process

of phthisis in detail. The involvment of an entire lung is simply the filling up of the parenchyma with peri-bronchial product or with the results of the desquamative pneumonic or interstitial process. And as one or the other of these predominate so do we have peri-bronchial, fibroid or catarrhal phthisis. Another interesting although not demonstrable incident in the pathology of phthisis is hæmorrhage. Bleeding from the lungs occurs both early and late in the history of cases. The hæmorrhage is easy to explain, being nearly always due to ulceration of the blood vessel walls. The cause of early hæmorrhage is less simple; it is possible that in cases of phthisis there may be mal-nutrition or fatty degeneration of the blood vessel walls, rendering rupture under conditions of increased arterial tension in the lungs an easy circumstance. It may also be the result of tubercular infiltration of the muscular walls which is followed by rupture of the blood vessels. Cavities in phthisis are the result of several processes. They occur by (*a*) a slow or rapid process of fatty degeneration, followed by ulceration; (*b*) as the result of chronic bronchitis, and softening of bronchial tissue, with subsequent yeilding to traction from without; for instance in broncho-pneumonia, or fibroid phthisis; (*c*) abscesses as a sequence of acute lobular-pneumonia following hepatization or purulent infiltration; (*d*) as the direct result of gangrene, itself the immediate consequence of wounds of the lungs or blood poisoning, or of emboli. Local gangrene on a small scale occurs sometimes around cavities in lungs, or in the bronchial tubes, and may give rise to temporary fetor of breath, but is not likely to lead to fallacious inferences, chiefly because of its temporary character and the absence of permanent concomitant symptoms. It naturally follows that there are two locations for vomical, the pulmonary and bronchial tissues. Specimens illustrating the various forms of cavities are upon the table.

The limits of a paper designed to open a discussion on phthisis will not permit me to dwell upon the bearing of these pathological changes upon physical diagnosis; I therefore will close with a brief resumé of the general clinical symptoms which define the diagnosis of the various sorts of cavities: *Phthisical Cavities*, commonly are situated in one or both lungs, and are indicated as a development in a train of spmptoms which include as prominent features, gradual emaciation, persistent loss of weight by reason of mal-assimilation of food, more or less frequent hæmorrhage,

and hectic, frequent pulse, hacking intermittent cough, numular sputa, expectorated in varying amounts throughout the twenty-four hours, and not periodically as in bronchial dilatations, nor is augmented by a gush of pus and mucous as in abcess. *Cavities of the Nature of Abcess.*—The pathology of these cavities, with its coincident clinical history, is not that of phthisis. The history of these cavities is either recovery by contraction (especially after wounds) or more frequently the abscess grows larger and larger until the entire lung may be destroyed, in this respect resembling phthisical cavities. When death occurs it is by exhaustion and hectic, where recovery takes place it is by free opening externally or internally, and evacuation of the contents. At times the small amount of constitutional disturbance, slight degree of emaciation, good pulse, easy breathing, slight cough and healthy complexion are in noticable contrast with the physical sighs. Cavities of the nature just described are mostly located in the base of the lungs. *Cavities due to Bronchial Dilation*—Frequently for years the general health is almost unimpaired, and it is never so proportionately to the degree indicated by the physical signs. There is no hæmorrhage nor night sweats, and emaciation is not a pronounced symptom. The same physical signs persist for months or years unchanged, contrary to the history of most phthisical cavities, which continually alter with the advancing malady. The expectoration of bronchial dilatation is more abundant, fluid and purulent, than in catarrhal phthisis, and is usually brought up in the morning, or evening by the cupfull. It is not a constant spitting of numular sputa, as in true consumption. In chronic cases the expectoration may become so fetid as to generate suspicions of gangrene; the cough is harrasing, but is often relieved if the bronchial cavity is thoroughly emptied.

Dr. Musser said that little could be added to this admirable and concise, yet exhaustive resumé of Dr. Bruen on the morphology of phthisis. The limited experience that he had had in the study of the histology of phthisis had convinced him that in the microscopical structure of the lesions, there is but little difference noteworthy in the primary changes. We have one school teaching that inflammation, another that tubercle is the primary element I cannot but agree with the author of the paper in the statement that the disease varies histologically with the varience in the intensity of one of these elements. In both we have epithelial proliferation and accumulation, changes in the vascular and lymphatic tis-

sues (tubercule) and increase in the interlobular connective tissue. So intimately is the evolution of each of these processes connected that a classification like that of Grene (*Lancet. 1882*) seems most proper (*a*) Consolidation. Intra-alveolar. (*b*) Consolidation involving mainly alveolar walls. (*c*) Consoidation consisting largely of intra-lobular connective tissue. Without absolute commital either way, and yet in the line of exact truth the distinction thus given seems to cover the entire histological ground. Dr. Musser has had abundant opportunity for the study of the clinical aspect of phthisis and although an arbitrary histological distinction of its varieties cannot be made, it is of the utmost importance as influencing treatment and hence the prognosis of the case to have a distinct and definite idea of the clinical varieties. The importance of the subject will be sufficient apology for the clinical remarks. Ante and post-mortem observation has led him to adopt the following classification, as convenient, systematic and embodying the various phases of the disease.

Acute.

A. 1. Catarrhal pneumonia.	*B.* 1. Catarrhal pneumonia. Tubercle may be seconary.
2. Pneumonic or caseous phthsis.	2. Tuberculosis.
3. Pulmonary tuberculosis.	3. Interstitial or fibroid phthisis. Tubercle may be secondary.
4. Miliary tuberculosis.	

It is scarcely fair or proper to call acute catarrhal pneumonia a kind of phthisis, as it only is related as a possible primary factor. So seldom is it recognized and so baneful are the results of non-recognition, and hence inactive and inadequate treatment, that it is important to show its relation. It will be observed that catarrh and tubercle are distinguished, and so for *convenience* and *contrast* we may term the kinds "catarrhal" and "tubercular." Perhaps a clue to the pathology of phthisis may be found in defining the characteristics of each. In the first place there is a marked difference in the predisposing causes of the disease—hereditary and diathetic condition. Thus tubercular phthisis is markedly hereditary, catarrhal is not; the tubercular is associated with tubercular diathesis and a phthinoid chest, the catarrhal, in some with scrofulous diathesis and a perfect chest. Then the mode of onset differs greatly. In the former the general symptoms are more marked, the pulmonary symptoms in abeyance; in the latter, the pulmonary symptoms are more marked, the general slight. Emaciation, loss of appetite and dyspepsia precede or accompany the development of the former; they do not occur until late in the latter,

Amenorrhœa and changes in the voice also occur early in tubercular phthisis. In tubercular phthisis hæmorrhage occurs more, frequently and earlier than in catarrhal. In tubercular phthisis dyspnœa is a more marked and early symptom, and is out of proportion to the physical signs. Debility is more marked and more readily induced in tubercular phitisis.

The temperature is not so hig hearly, and does not have the long daily sweeps in the late stages, in tubercular as in catarrhal phthisis. With a doubtful mark, it seems pleurisy, and chest-pain is more common and constant in the tubercular than in the catarrhal form. The physical signs are bilateral and not pronounced in the tubercular form; they are unilateral and pronounced in the catarrhal form. The progress of the tubercular form is rapidly and progressively downward; of the catarrhal, slow and in spurts. Tubercular phthisis is contagious? and anteinfective. Over and over again do cases present themselves at the University Hospital and Dispensary with just such definite and broad distinctions, which distinctions should determine the line of treatment to be adopted, the catarrhal form requiring a more active local and general antiphlogistic treatment. It is not to be forgotton that the cases are not always, I may say generally, so easily distinguished, while the picture does not apply to acute miliary tuberculosis or fibroid phthisis. In a previous discussion on phthisis, Dr. Musser had held that acute primary plastic pleurisy did not occur save in a tubercular subject, and hence was secondary to that diathesis. That statement is possibly too broad, and it should be that frequently recurring acute pleurisies occur only in the tubercularly diathetic, and are antecedent to the development of phthisis. The recognition of exocardial and subclavian murmurs lead one to say than persons having such sounds are *threatened* with phthisis. Dr 'Eskridge said that he had been much interested in Dr. Bruen's remarks, in most of which he concurred. As to pleurisy antedating phthisis, it was an old view, which had lately been revived. He had been struck with the frequency of chest-pains preceding phthisis; in over seven hundred cases of which he had notes, this symptom was noticed in more that two-thirds. This pain may be on the opposite side to that of the affected lung. Interstitial phthisis is not always a chronic affection, Dr. Barlow and others having reported cases which proved fatal in six months. Hæmorrhage,

in his experience, was a very common symptom in this variety of phthisis.

Dr. Eskridge called attention to the fact that cardiac valvular diseases, especsally mitral regurgitation, attended by venous congestions and coming on after birth, are rarely associated with phthisis; while congenital deformities of the heart, attended by venous stasis, etc., are followed, according to some eminent authorities, in nine-tenths of the cases, by tuberculosis of the lungs. Dr. Shakespeare said that one point made by the lecturer had especially struck him as being opposed to his own experience, viz., that the earliest part of the lung attacked was generally the root. He had usually found the consolidation at the periphery of the lobe, often forming, as it were, a shell of sodid lung perhaps an inch thick, while the central or deep portions would be either not at all, or but little affected. This peripheral consolidation seemed to have no particular relation to initial pleurisies, for the consolidations were quite frequently met with in cases almost free from pleurisy and old adhesions. He had also very often noticed at autopsies after death from intercurrent diseases, wedge-shaped patches of solidified lung tissue, having the base at the perphery of the organ and a slightly raised surface, much like infarcts and containing miliary tubercle whilst the intervening pulmonary tissue was normal.

Dr. Formad asked Dr. Bruen what he considered was the difference in the pathology of acute and chronic phthisis? Also on which side the disease most commonly occurred? Dr. Formad also desired put on record, some observations on the histology of phthisis, made by W. H. Mercer in the Pathological Laboratory of the University of Pennsylvania, which he narrated as follows: that acute phtisis (all fatal cases) is invariably complicated with crupous pneumonia, which conditions the lethal termination, that the lining of the broncholes and the endothelium of the blood vessels plays a very active part in the formation of organized tubercle granulations, filling and widely distending the lumena in both instances. The existing observations on this point as far as I remember, refer only to blood vessels, and then merely to cheesy, broken down material obliterating vessels, or occasionally to the formation of giant cells, or to something which in transverse section similates a giant cell. Mr. Mercur states that the obliteration of broncholes by living, organized granulation tissue is the most common starting point

for pulmonary tubercle granulations, and forms the greater bulk of the latter. He also found that the exudate within the air-vesicles in acute phthisis, was capable of undergoing complete organization, and that a group of such blocked up air-vesicles with organized exudate is usually called (erroneously) a miliary tubercle, the outlines of the air-vesicles being mistaken for sub-miliary tubercles. Mr. Mercur had failed to find a single true miliary tubercle in a large number of thoroughly studied cases of phthisis, and agrees with those who regard miliary tubercle nodes as secondary products only. Dr. Formad desires distinctly to state that Mr. Mercur's observations were made on, and apply only to the lungs.

Dr. Tyson was interested to note how much histological investigations has contributed to our knowledge of the nature of these important processes under discussion; and while he was ready to admit that we owe much to experimental pathology, he felt that our present more correct notions were the result of microscopic studies of the human tubercular lung. The point to be insisted upon is that all these processes are tubercular and all are inflammatory, the catarrh of the lung and tubercle granulations being in all cases the initial lesion, whence it extends peripherally by desquamative catarrhal pneumonia or centrepetally by a tuberculous peri-bronchitis, the former furnishing the rapid and the latter the slow forms of phthisis. That pleurisy is often the initial lesion of tuberculosis, he thought, had long been acknowledged. Dr. Shakespeare said that the observations reported by Dr. Formad for his pupil, reflected great credit upon both and was another testimony of the value of the work done in the pathological laboratory of the University, but at least two of the announcements, for which novelty and originality were claimed, had been forestalled years ago, by other observers. He had particular reference to the organization of the products within the alveoli of the lung and the announcement that the walls of the minute blood vessels, by a proliferating endo-arteritis and peri-arteritis formed the miliary tubercle. The former is not only recognized and described in Green's Handbook of Pathology but also most beautifully *illustrated*. The latter has been repeatedly observed and published, sometimes with illustrations. This origin of tubercle is distinctly referred to in the text-books of Wagner, and Cornil and Ranner. All these books are in the hands of the University students.

Dr. Formad said that existing observations on this point, as far as he remembered, referred only to blood vessels, and then merely to cheesy, broken down material obliterating the vessels, or occasionally to the formation of a giant cell, or to something which in transverse section, simulates a giant cell.

In closing the debate upon the subject, Dr. Bruen said that he had coincided with Dr. Tyson in the opinion that phthisis was rarely associated with heart disease. In mitral regurgitation there was often indeed a thickening of the pulmonary substance allied to the indurative changes in the other organs from like causes. Advanced fibroid disease, with cavities as shown in one of the specimens exhibited by him through the kindness of Dr. Hinsdale, he had not met with heretofore. Dr. Formad's query as to the relative frequency of phthisis upon the right or left side, he felt must be answered by the statement that one side was as liable to disease as the other, while probably, in a small majority the right side was most frequently involved. He thought that the peripheral portions of the apices anteriorly was the most common starting point, where there was much degenerative pneumonia and rapid phthisis, while the roots posteriorly were primarily attacked in the more slowly developed forms of broncho-pneumonic phthisis. The roots of the lungs are the seat of the latent phthisis developed as the sequential lesion of croupous pneumonia. Dr. Bruen dissented from the view that croupous pneumonia was a frequent cause of death in phthisis. He believed that in the rapid, as well as in the more latent form of phthisis, death was preceded and hastened by a development of the tubercular nodular tissue to which allusion had been already made. This tissue completely fills up and chokes the mucous pulmonary structure causing dyspnœa, etc., etc.

C. B. NANCREDE, Sec.

Clinical Reports from Private Practice.

Article XLII.

"The Blue Man of Missouri."—The Effect of Nitrate of Silver on the Skin and Mucous Membrane.—Reported by Thos. F. Rumbold, M. D.

Mr. J. S. F———, æt. 33 years, of Columbus, Mo.—At the age of about fifteen years he took daily from five to ten drops of a solution of nitrate of silver of the strength of grs. xx ad. ℥j. This was continued for about five or six months; at the end of this time he noticed that his face and hands were getting a peculiar dark color. The color increased for some time after he discontinued taking the silver solution.

The color of the integument of his face and hands at the present time resembles a No. 2 lead pencil mark, with a light sky-blue in it. A stove merchant, who happened to see him in my office, thought that his face and hands had the appearance of being colored with a light coating of stove polish, which is really a very good description of his appearance, as the skin of the face, especially, has a marked polished appearance or a shine to it. The color is decreased during cold and dry weather and increased during damp and hot days.

The mucous membrane lining the anterior nares, the inside of the mouth, the lips, the under portion of the tongue, the soft palate, tonsils, pharyngo-nasal cavity, larynx and vocal cords were all colored by the nitrate of silver, so were also the membrana tympana and the sclerotic coat of the eyes.

The whole of his body was more or less colored, but not to so marked a degree.

Correspondence.

Article XLIII.

QUACKERY.

Editor Journal:

In our endeavors to stear clear of quackery, we are not sure of escape, if we judge the physician by his accomplishments.

Some of the most dangerous characters in this respect, posses high mental culture and polite demeanor. Captivating their dupes by these very means. Neither is it the one who knows little of therapeutics, physiology and pathology, most to be feared.

The unlettered bigot and the conjuror may be styled quacks, yet we are not annoyed in our profession, to any great degree, by the grossly ignorant. The very possession of a sharp intellect, genteel manner, literary knowledge and medical skill, enables him who would enter the rôle, to take position behind them, like the soldier under cover of fortifications.

Such a one will ply his work when in consultation, and appear in superior grandure, when compared to another who aims to be professionally correct. He impresses the patient and friends with almost worshipful approval. There are many grades in quackery. The doctor who does by another physician, different to the way he wishes to be done by, is a quack.

The doctor who prescribes patent medicines and puts up compounds of his own for sale, is a quack. The doctor who will not meet in counsel with any one else for fear of lowering himself, is a quack. We have yet another kind of a quack. Take a seat in the average drug store and observe; in course of events a customer enters, saying, "I am unwell," and making inquiry of the clerk, "Do you think you have anything that will relieve me?"

Said clerk inquisitively answers, "Well, what seems to be the matter, how do you feel?" A rude description of his feelings is given by the sick man.

The druggist thinks of the printed directions on some of his medicines recommended for similar symptoms,—"Certainly, I

think so, yes," he answers; and the drug is handed over the counter, the money taken, and caution given to follow directions.

The man's ailment may be one disease or it may be many; it makes no difference, just so he can name it or suggest how he feels—the remedy is forthcoming.

Here we note two evils in the one transaction: First, the sick man does not know why nor how he is diseased. Second, the druggist does not know what the medicine is he has prescribed. The patient, in his ignorance, supposes the clerk should know the uses of his drugs; and the druggist, on the evidence of printed indications, and complaints made by the sick, blindly gives the medicine.

This druggist, if asked by a patron of yours, "Can I get more of the medicine that Dr. P. told me to get here when my wife was sick," will go to the file of prescriptions, hunt out the formula, put up the remedy and place on the bottle, written directions over your name.

There are few druggist who do not prescribe in this way; and in my judgement it is the most formidable species of quackery, the honest practitioner has to encounter. Again, it is a custom among druggists to furnish physicians with prescription blank books. And on the margin of each leaf, are printed the names of some of the principal article on sale at the place of trade, and the name of the firm, with instructions to take the order to said firm. If you write a prescription on such a page, you become an agent for the sale of the articles advertised, and direct your patron to go to the vender to make his purchase.

No physician who understands his duties and has the proper regard for his patients, will ever prescribe a patent medicine, neither can he afford to become agent for it. I am almost persuaded the time is near at hand when we, of necessity, will be compelled to dispense our own drugs, and thus obey the first law of nature.

T. HODGE JONES, M. D.

ARTICLE XLIV.

EDITOR JOURNAL:

I have just read in the March No. of the JOURNAL, what Dr. Stevens had to say in regard to Swedes and Norwegians drinking alcohol, in the pineries of Wisconsin and Minnesota. I practiced medicine thirteen years in Northeastern Iowa. There was a large settlement of Norwegians in my circuit, and I corroborate what Dr. Stevens says in regard to their drinking alcohol.

This is their common drink and every family keeps it in the house and drinks it as freely as the Germans do their beer. I have seen but few cases of tremens, and not so much drunkeness as I have seen among the railroad Irish with their rot-gut whiskey. The class of Norwegians in Iowa, are the very poor in Norway. They manage to get enough together to get over here, and with their simple wants and frugal habits, very soon get rich. In harvest, where great exertion is required, they drink their alcohol freely; have it in the field with them, and they all work in the field then; women, children and all use the alcohol freely.

I have scarcely ever seen any drunk at these times. I saw a great deal of phthisis among them, and their remedy is their alcohol and their native cod liver oil, with a kind of domestic beer they make out of barks &c., they import from Norway. I saw more consumption among them than I ever saw among other nationalities. Probably the reason is what I have already stated, they are the very poorest class Norway has, hence, bad food and scant supply,—poor in quality—etc., engender it.

I have often been led to think of the different kinds of stimulants and narcotics the human family uses. Every nationality has its stimulant and narcotic. As above, the Norwegian and Swede, his alcohol; the German, his beer; the Irish, his whiskey, etc. But what does the American drink? We are a mongrel nation, hence, our drink is a mongrel drink—a little of everything.

The Chinaman will do more on his stimulating doses of opium, standing it longer and harder than any of these national

alcohol drinkers will. I was acquainted with an intelligent Chinaman who would endure twenty hours out of twenty-four, and hardly show fatigue, on small doses of opium.

I myself have ridden day after day—when it seemed as though I could hardly climb into my buggy without it—on *strong coffee.*

A book might be written on the judicious use of stimulants, taken as *food*, and perhaps in a short time I will prepare a paper on stimulants and narcotics, from this standpoint.

Yours Respt.,

DR. N. A. DRAKE.

Kansas City, March 22, 1882.

Editorial.

Article XLV.

SANATIVE CONDITION OF ST. LOUIS.

Small-pox has again made its appearance in St. Louis. For some time past the officers of the Health Department have been renovating and preparing the Quarantine Hospital, and just when everything was in readiness for patients, the patients arrived.

Within the past week, fifteen to twenty cases of small-pox have been found in the city; the cry that *small-pox is in the city*, would not cause so much apprehension if it were not for the fearful condition of our streets; all winter the mud and filth has been accumulating, and there has been but a weak attempt on the part of the Street Commissioners to remove it, and although our papers and journals have kept up a continual ding-dong on the subject, and the importance of clean streets in relation to public health has repeatedly been pointed out to them, still they have paid but little attention to it.

When warm weather comes, the scent that will assail one's nostrils, will simulate the peculiar odor that is smelt in the city on the lakes, when the wind is up river.

In the present condition of the streets, they must be very deleterious to public health, and in the event of yellow fever or cholera making its appearance, St. Louis will most certainly get her share of these diseases.

In all the public streets, the mud and filth ranges from two inches to six and eight inches deep, and in some of the heavily traveled streets, the slush lies twelve inches deep, while the alleys are filled with ashes and garbish, and it has been truly said of St. Louis, that while she has a solid financial basis, she is one of the dirtiest cities in the Union.

THE COLLEGE FOR MEDICAL PRACTITIONERS.

This College has finshed its Second Course and will, on the 7th day of May next, commence its *Third Course.*

This is an institution in which every physician in the West is interested. In it they may acquire further knowledge, to enable them to more successfully practice their profession. A College so entirely new in all its working plans as this one is, require some time to perfect its organization. The working plans required for an ordinary medical college, are well known; but those of an institution of this kind can only be ascertained by trial. To know what is most required by those practitioners who are most likely to attend, canonly be found out by consulting the wishes of several classes. We all know what the most ignorant physician requires, but this *genius* will not attend our College, as he has not got the money, nor has he ambition to do so.

While there is no scarcity of those who are fully able to teach *non-graduates*, there are few who are both able and willing to undertake the instruction of Medical Practitioners are determined to keep abreast of the profession, some of whom have had from ten to thirty years experience in practice, consequently are well informed on some of the most important subjects of medicine. To teach non-graduates, requires but little more than that the text-books be memorized; but to teach a class composed of experienced and reading physicians, requires the combination of large experience, full information on *all* the latest views of the most advanced of the profession and an aptitude to impart what they know in a manner that will be attractive to the hearers and will be retained by them.

The expectation of its founders to give satisfaction to its students, is fully realized as the resolution passed by them, at the last course plainly attests. At their request, this is placed before the readers of the JOURNAL.

COLLEGE FOR MEDICAL PRACTITIONERS,
St. Louis, 1225 Washington Ave.
March 6, 1883.

The medical class of the above College, assembled this day and elected Dr. P. W. Logan, of Stanford, Ky., Chairman; and Dr. O. B. Hicklin, of Elk Lick Springs, Mo., Secretary.

The Chairman briefly stated the object of the meeting and on motion appointed a committee composed of Drs. J. E. Bahrenburg and D. A. Ostertag both of St. Louis, to draft a preamble and resolution, expressive of their high appreciation and esteem for the Faculty of the College.

The Committee reported the following:

In as much as we feel very grateful and are under many obligations to the Faculty of the COLLEGE FOR MEDICAL PRACTITIONERS for many favors shown us, we offer the following resolution as an expression of our appreciation of their enterprise in the establishment of this College.

Resolved: That we fully appreciate the many good results that have accured to us during the past five weeks, and recognize the fact that *a school for practitioners is a desideratum* that cannot well be supplied except by a school of this kind, which is entirely unique in its character. The lectures have been instructive, practical and interspeiced with the exhibition of many important and interesting cases of a surgical and gynæcological character. We have also had access to the College Dispensary every day, where we not only had the pleasure of seeing a multitude of patients afflicted with the various diseases of the nose, throat and ears, but were permitted to treat them in accordance with the most recent and approved plans, thereby being enabled to handle instruments with more dexterity and skill than we otherwise could do. In fact every department of medicine and surgery, both special and general has been represented in a manner entirely satisfactory. We therefore feel that this testimonial is due the Faculty, and hope that they will accept the same as an evidence of our gratitude and an endorsement of their method of teaching, and request that this action on the part of the class be published in the ST. LOUIS MEDICAL AND SURGICAL JOURNAL.

The above being unanimously adopted, the meeting adjoured.

O. B. HICKLIN, M. D.

Sec'y.

News Items.

Article XLVI.

The quarterly meeting of the Illinois State Board of Health will be held in Chicago, April 12th, at the Grand Pacific Hotel. At this meeting the annual examination of non-graduates will take place.

The Association of American Medical Editors.—The next annual meeting of the Association of American Medical Editors will be held in the City of Cleveland, Ohio, simultaneously with that of the American Medical Association, on June 5th and 6th, 1883. The order of exercises for Tuesday, June 5th, the session opening at 7.15, P. M. will be as follows: Roll call; reading of minutes of previous meeting; address by president and discussion thereon; reports of committees; deferred business; new business, election of members, adjournment. The programme for Wednesday, June 6th, the session opening at 7:15 P. M., will be as follows: Roll call; reading of minutes of previous meeting; address by Dr. Henry O. Marcy, of Boston; reading of special papers by Dr. John A. Octerlony, of Louisville, Ky., and Dr. Alexander J. Stone, of St. Paul, Minn.; discussion of addresses and papers; reports of committees; deferred business; new business; election of officers and members; adjournment. The subject of the address to be delivered by the president, Dr. N. S. Davis, Chicago, is: "The Present Status and Tendencies of the Medical Profession and Medical Journalism." A free discussion upon this important subject is invited, which will be open, not only to members, but to all physicians present. Dr. Marcy's address will be upon the subject of: "Journalism devoted to the Protection and Concentration of Medical and Surgical Science in Special Departments." The secretary was authorized at the last meeting of the Association, held at St. Paul, Minn., to make the above arrangements for the coming meeting, and also to specially invite all the members of the profession, and friends attending the meeting of the American

Medical Association, to be present. The meetings will be held in the intervals between the meetings of the sections of the American Medical Association, and the social entertainments of the evening. The sessions will be short and undoubtedly interesting.

Very Respectfully,
J. V. SHOEMAKER, M. D., Sec'y.

FROM the new edition of Messrs. Geo. P. Rowell & Co's American Newspaper Directory for 1883, which is now in press, it appears that newspapers and periodicals of all kinds issued in the United States and territories now reach the imposing total of 11,196. This is an increase of 585 in twelve months. It is interesting to note that the newly-settled regions of the Canadian Northwest are productive of newspapers as well as wheat, for the number of journals issued in Manitoba was nearly doubled during the year.

THE corrigentia used at present to disguise the odor of iodoform are not satisfactory. For this reason it will be of interest to know that carbolic acid is an excellent corrigent. Add .05 carbolic acid to 10 grm. iodoform, and the odor is entirely covered, and it does not return even at the highest temperature. Two drops of ol. menth. pip. added to the powder increases the pleasantness of the odor. In ointment this powder thus prepared is far preferable to the odor produced by tonka bean, bals. peruv., ol. carui, or ol. menth. alone. It is always advisable to rub up only so much of the acid carbol. in the powder as the above formula calls for, as a greater quantity would in many cases prove irritating.—[*Berlin Klin. Wocken-script*, No. 48, 1882. Carl Scherf.

SALICYLIC ACID IN NIGHT-SWEATS.—The following powder is recommended by Dr. Könhorn in the night-sweats of phthisis: Acid salicyl. gr. 45, starch, ʒ ijss, chalk, ℥ ijss. The entire body of the patient is dusted with this powder at bedtime. The author claims to have obtained great success by this treatment. The same powder is employed in the Austrian army in sweating off the feet.—[*Memorabilien*, Nov. 15, 1882.

REMEDIES FOR HEADACHE.—The following recipes and sug-

gestions for the treatment of different forms of headache are collected from a variety of trustworthy sources:

Two grains of citrate of caffeine, in capsule, taken every half hour, is a very effectual remedy in nervous and sick headache. One or two doses are often sufficient to give complete relief. The only objection to its use is sleeplessness, which sometimes result if it is taken in the evening. It is preferable to guarana as being hardly ever rejected by the stomach.

The following, according to Dr. W. W. Carpenter, is very effectual in most forms of headache:

Muriatic amonia, 3 drachms; acetate of morphia, 1 grain; citrate of caffeine, 30 grains; aromatic spirits of amonia, 1 drachm; elixir of guarana, 4 ounces; rose water, 4 ounces. Mix. Dessert spoonful every ten or twelve minutes.

In nervous headache, Dr. W. A. Hammond states the value of various drugs as follows:

Oxide of zinc is of great value. Ordinary dose, 2 grains, three times a day, after meals; the maximum dose, 5 grains. It is best given in the form of pills.

Nux vomica is preferable to strichnia. The dose is ½ grain, after meals. If the patient be chlorotic, it is well to combine a grain of reduced iron and a half grain of sulphate of quinine.

Bismuth in the form of subcarbonate, will often take the place of oxide of zinc. Dose, 2 grains, after each meal. Bismuth probably aids digestion more than any mineral tonic, and is of use where there is gastric disturbance.

The bromines are servicable when the nervous system has been irritated; when it is exhausted they do harm.

Phosphorus is very useful in most forms of nervous headache. The best results are obtained from dilute phosphoric acid, in doses of 30 drops, largely diluted, three times a day, after eating, or phosphide of zinc, .1 grain, in pill three times a day.

Arsenic, as a nerve tonic, stands next in value to zinc. Dose, 5 drops of Fowler's solution three times a day, after meals.

Galvanism is sometimes valuable, but by no means a specific. The constant current should always be used, being careful to avoid too great intensity, lest amauosis be produced.

Dr. T. Lauder Brunton, editor of the London Practitioner, says: The administration of a brisk purgative, or small doses of Epson salts, three times a day, is a most effectual remedy for

frontal headache when associated with constipation; but if the bowels be regular, the morbid process on which it depends seems to be checked, and the headache removed even more effectually by nitro-muriatic acid, diluted 10 drops in a wine glass of water, or bicarb. soda, 10 grains, in water before meals. If the headache be immediately above the eyebrows, the acid is best; but if it be a little higher up, just where the hair begins, the soda appears to be the most effectual. At the same time the headache is removed, the feeling of sleepiness and weariness, which often leads the patients to complain that they rise up more tired than they lie down, generally disappears.

A writer to the London Lancet remarks: At the Middlesex Hospital, female patients who have suffered many years from sick headache, evidently of a hereditary character, have been greatly benefited, if not cured, by the administration of 10 minim doses of tincture of Indian hemp, three times daily before the attacks. This is well worthy of trial in those cases of ever-living, never dying, martyrdom-like suffering.—[*Hospital Gazette.*

MARRIAGE AND THE MICROSCOPE.—The extremes to which microscope cranks are liable to go receive an apt illustration in the following, quoted from Heitzmann's Microscopical Morphology:

Marriages should be allowed, in doubtful cases, only upon the permit of a reliable microscopist. Last season a young physician asked me whether I believed in the marriage among kindred. He fell in love with his cousin and so did his cousin with him. I examined his blood and told him that he was a "nervous man, passing sleepless nights, and had a moderately good constitution. The condition being suspected in the kindred lady, marriage was not desirable for fear that the offspring might degenerate. So great was his faith in my assertions that he gave up the idea of marrying his cousin, offering her the last chance, namely, the examination of her blood. The beautiful girl came to my labratory and, very much to my surprise, I found upon examination of her blood a first-class constitution. The next day I told the gentleman, "You had better marry her."—[*Medical Age.*

THE QUALIFICATIONS OF A HEALTH OFFICER.—The following deffinition of a successful health offier, copied from the *Medical*

News, of Philadelphia, is respectfully submitted to the consideration of appointing powers wherever found:

The rapid advance in sanitary knowledge, and as a consequence, the more exacting demand for a careful and wise administration of sanitary law, requires a rigid scrutiny into the qualifications of all executive officers of health. So varied and responsible are the duties entrusted to the health officer of a large town or city, that without special knowledge and training and good administrative ability, the holder of the position cannot successfully discharge the obligations of the trust. Recognizing the soundness and wisdom of this principle, the local government of England has long since required that all health officers shall be medical men, who, by education and training, are especially fitted for the work of investigating the causes and prevention of diseases, the management of epidemics, supervision of sanitary inspections and the intelligent administration of the laws of health.

It happens too often in this country that the position of health officer is one of political reward without consideration of personal and professional qualifications. The result is an inefficient, haphazard and automatic execution of the laws, and a failure to judiciously and efficiently carry out the duties of the office through ignorance of the fundamental principles of public and private hygiene.

A health officer should be an experienced sanitarian and a physician of thorough education. He should be capable of advising the sanitary authorities in all matters affecting the health of the people, and he should be competent to intelligently inquire into the cause, origin and distribution of diseases to ascertain to what extent they are capable of removal or mittigation, and to make use of all the means at his disposal for the preservation of the public health. He should give his entire services to the position; he should receive a liberal compensation, and should have the assurance of remaining in office so long as the duties of it were judiciously and efficently discharged. The present uncertain tenure of office is a bar to an eligible appoint ment, as none but a professional office-seeker is willing to throw aside the advantages of a permanent avocation for an office of uncertrin tenure.

IODOFORM AS A VERMIFUGE.—Dr. Schildowsky (St. Peters-

burgh Med. Woch.) has found that iodoform is destructive of round worms in the intestines. He has employed it successfully in three cases, and with results which warrant him in asking for it a further trial. The adult dose as given by him is 1 grain, with 10 of bicarbonate of sodium; for a child the dose must be reduced in accordance with the usual rule.

A PRINCE of science having been called to see a sick child, prescribes for it, and on his visit the following day is surprised to find the family in tears. "My poor child," sobs the mother, "I never thought he would have died of croup." "Of croup!" echoes the doctor, "do you mean to say the child died of croup? Why didn't you tell?"—[*Medical Age.*

TRANSPLANTATION OF MUSCLE IN HUMAN BEINGS.—Before the Imperial German Congress of Surgery, Herr Helfrich read a on this subject (*Medical Press and Circular*) based on a case in which the whole of the biceps of a woman had been removed, with the exception of a strip the thickness of a lead pencil and replaced by a piece of muscle from a dog. Complete healing took place, and after some months' use of electricity the power of movement lost previously to the operation was restored Herr Gluck (Berlin) reported that his experiments in transplantation of muscle had always given positive results.

DIALYZED IRON.—Dr. Prosser James has lately said, in a summary of the position which dialyzed iron is entitled to hold in medicine, that the persalts of iron are frequently employed solely on account of their astringency, while the protosalts are occasionally considered as being destituted of this quality. The freshly-prepared carbonate is an excellent mild chalybeate, bnt difficult to keep in an unaltered state, so that preference is given to reduced iron. The scale preparations of iron are held in repute, both from the extreme facility of their use, and their agreeable taste. When these three forms of iron are inadmissible, dialyzed iron may be resorted to with admirable effect. It is a milder chalybeate than the three preceding, and does not produce the slightest irritation.

A recent analysis by Professor Tichborne of Wyeth's preparation agrees almost exactly with Graham's statement, that dialysed iron contains 98.5 parts of the oxide and 1.5 parts of

hydrochloric acid. The liquid thus obtained differs altogether from an ordinary solution of salts of iron, by its not giving rise to the blood-red color on the addition of alkaline sulphocyanide, nor to the blue precipitate with ferrocyanide of potassium. It does not become cloudy on boiling, nor when agitated with two parts of ether and one part of alcohol is the ether layer colored yellow. It is so sensitive that ordinary spring water will cause a precipitate, yet no precipitate is produced by nitric, acetic, or muriatic acid. Graham's solution gelatinized in about twenty days, and he regarded it as a solution of colloid ferric hydrate which, he cosidered, existed in both a soluble and insoluble form. It is however never free from chlorine. Theoretically, therefore, the liquid is a solution of a basic oxychloride, but it can nover be imitated by dissolving saturated solutions of the hydrate. All these artificially-made liquors are astringent, with ferruginous taste and acid reaciion.

Respecting the therapeutic value of dialyzed iron, of which there has lately been some inclination to doubt, Dr. James says there is no qnestion. By the method now followed of counting blood-corpuscles, it is found that the taking of dialyzed iron both increases their number and improves their condition. Dr. James gives, as an average dose, twenty to fifty drops, daily, in three doses. Dr. Weir Mitchell, of Philadelphia, gives as mueh as a drachm at a time.

Specimens have appeared in the market which are not only innocent of any acquaintance with a dialyzing membrane, but seem ltle else than diluted solution of perchloride of iron.—*London Chem. and Drugg.*

A HALF glass of very hot water, taken morning and evening is said to be an American panacea lately introduced into England as a "pick-me-up." It has been found especially valuable in gout, rheumatism, indigestion, dyspepsia, etc., as occurring in those whose brains are habitually heavily taxed.—[*Ibid.*

MEDICINE AND LONG LIFE.—An analysis of the tenth census of the United States with especial reference to doctors of medicine shows that the number of doctors in 1880 was 87,671, of whom 2,432 were women. Of this number, 8.397 were over sixty years of age. This is a better showing than is made by any of the other occupations of men, the clergy alone excepted. It cor-

roborates that made by the profession in England. It is a somewhat significant fact, moreover, that the largest percentage of aged physicians is found among those who have been prominent in the calling, their brain work performed by these evidently, as in the case of clergymen, being favorable to longevity. Among twenty English physicians whose ages were recently published, and the average of which was a fraction over 85 years, there was not one who had not attained prominence. The conjoined physical and mental exercise necessitated by the practice of medicine more than offsets the evils due to exposure and irregular hours.—[*Medical Age.*

WELL, madam, how's your husband to-day?" "Doctor, he's no better." "Did you get the leeches?" "Yes, doctor, but he could only take three of them raw; I had to fry the rest.

SNAKE BITES.—Dr. J. T. High recommends for this purpose ammonium carbonate, and he says:

"Split the skin where the fangs entered, insert the ammonia, also give fifteen to twenty grains every hour, dissolved in water, and he will have no further trouble. I live in a snake country, and have used the remedy with satisfaction."—[*Drug News.*

COFFEE IN TYPHOID FEVER.—*Medical Times and Gazette.*) In the early stages of typhoid fever, Dr. Guillassee, of the French Navy, has administered coffee with marked success. Three teaspoonfuls are given adults every two hours, alternating with one or two teaspoonfuls of claret or Burgundy wine. A beneficial result is immediately apparent. A little lemonade or citrate of magnesia is also administered daily, and after some time quinine is recommended.

VACCINATION ACCIDENTS.—A woman in Crawfordsville, Ohio, accidently touched a sore spot on her lip with a finger on which there was a small amount of vaccine viris. Her face and neck began swelling, and her condition was at first critical.

A man in Colfax sauntered into one of the drug stores there and seeing some vaccine points on the counter, mistook them for toothpicks, and proceeded to utilize one of them as such. His mouth became very sore, and it was feared that the consequences of this unusual method of vaccination would prove serious.

There were numerous abscesses in both cases, but no ultimate deformity.—[*Gaillard's Med. Jour.*

FOREIGN BODIES IN THE BRAIN.—In an autopsy on a patient dying in one of the Vienna hospitals, it was found that he had in his brain, an iron nail covered with rust, which to all appearances must have been there since early childhood. The man was about forty-five years of age, a bookbinder, and always passed for intelligent. Negative popular evidence is of but little value. The man, at irregular intervals, had epileptic attacks, and post-epileptic mental phenomena, while in the hospital.—[*Ibid.*

OBESITY AND ITS TREATMENT.—Epstein, of Weisbaden, describes a new dietetic method for the relief of obesity. He does not believe in 'Bantingism,' and states that it produces inanition which may be injurious. Dr. Epstein contends that a diet of albuminous and fatty matter tends to check deposit of fat, and that it is the sugars and starches which are to be left out in an anti-fat regmen. He gives bread, however, and green vegetables, peas and beans, but no potatoes. The addition of fat to the diet list has the advantage that it produces satiety sooner and the patient does not eat so much.—[*Med. Gaz.*

AN ASSUAGER FOR THIRST.—Sir Joseph Fayrer, Medical Officer of the Secretary of State in India, has reported his experience in the use of coca-leaves, chewed during mountain climbing, as a means of preventing or relieving thirst. His experiment consisted in the distribution of about eighty grains of the leaf to each one of the four guides and porters who accompanied him. During the ten hours consumed by the excursion, no water and but a limited quantity of wine was consumed. They drank no tea nor coffee, nor did they use ice or snow. Nevertheless, the chewing of the coca appeared to furnish great relief from thirst, and to enable them to made the trip with comparative comfort. —[*Ibid.*

URETHRITIS IN THE FAMALE.—Dr. Fisséaux (*Journal de Médicine de Bordeaux*, December 16th) has had good results in the treatment of urethritis in the female by the use of saponated coal tar. A wadding tent is steeped in this compoond, introduced into the urethra, and there allowed to remain even during mic-

turition, being renewed every two days. This procedure is not attended by any unpleasant consequences, and the urethritis

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THE CERTIFICATE OF LIFE INSUFFICIENT.—A gentleman, discovering that he has become entitled to sundry arrears of pensions, presents himself at the office to draw the money for five yields rapidly.
quarters already due.

"Where are the quarterly certificates to show that you are alive and to identify you as the person entitled to draw this money?" asked the official.

"Here it is," says the gentleman.

"Yes, but where are the others for the preuious quarters?"
—[*Gaillard's Med. Jour.*

THE DOG TONIC.—Charles Reade, the novelist, is credited with having named a dog Tonic, because it was a mixture of bark, steal, and whine.—[*Ibid.*

OUTWITTING AN ATTEMPT TO EVADE A FEE.—The late Dr. W Gibson told the following story in regard to luxation of the jaw:

"An old, wealthy man came into the office of a surgeon with a luxation of jaw to have it reduced. This was done, but on being asked the fee, the doctor mentioned an amount which the man insisted on having reduced one half. The surgeon said no more about the fee, but began to talk and told a laughable story. The man laughed heartily, and out went the jaw. He made signs to have it reduced, but the doctor said, 'When you pay down my fee I will put in your jaw.'—[*Gaillard's Med. Jour.*

CAUSE AND EFFECT.—"Alcohol," said the proffessor, "has killed more people than yellow fever,"

"That is true," said the somewhat bibulous student: "but that is only because more have taken it."

TASTELESS MEDICINES.—An old colored man saw a sign in a in drug store which read "Tasteless medicines." Looking in at the "pizenmixer," as he called him, he said: "Dat am de bes' advice I eber got—taste less medicines," and hurried away, just in time to dodge a package which was thrown after him.

Vol. XLIV. MAY, 1888. No. 5.

Original Contributions.

Article XLVII.

Syndectomy as the Treatment for Pannus.* By Flavel B. Tiffany, M. D., of Kansas City, Mo.

Gentlemen; I beg leave to call your attention to the operation of syndectomy as the treatment for pannus. I would also suggest it as applicable to xerophthalmia, symblepharon, and episcleritis.

In Pannus I think that I can safely affirm that syndectomy yields the most satisfactory results of all the different modes of treatment yet used, which assertion I shall endeavor to corroborate by statistics taken from actual practice. In pannus we have vascular opacity of the cornea due to the formation of a neoplastic layer of cells beneath the epithelial layer of the conjunctiva, as well as beneath the first lamina of the cornea. In these new layers blood vessels are formed and vascular networks are developed. The superficial network consists mostly of veins formed by the vessels of the conjunctiva, while the deeper is mostly arterial.

The most frequent cause of pannus is trachoma. In this disease we have a hypertrophy of the papillae and trachoma glands of the palpebral conjunctiva, more especially at the retrotarsal folds and at the canthi. The course of trachoma is usually very protracted, extending over many months and years even, and though improved by treatment is very liable to relapses which may occur again and again, leaving the eye each time in a worse condition than before and gradually giving rise to various complications, the most dangerous to sight being that of pannus If the development of the granules is not checked, they may extend deeply into the stroma of the conjunctiva causing atrophy and a change into cicatricial tissue. The blood vessels become obliterated, the papillæ follicles as well as the meibomian glands become destroyed. These changes are more likely to take place at the retrotarsal folds which become contracted and tendenous, so that their free borders are shortened. They

* A Synopsis; with added data, of a paper read before the Kansas State Medical Society at Emporia, 1882.

are no longer allowed to spring into folds, but from their shortening pass directly on to the ball of the eye (Fig. 14. a.) and thus the folds or *cul-de-sac* become obliterated and a certain amount of symblepharon is produced. If the symblepharon is great, the lids cannot be closed and the movement of the globe is interfered with, and a certain amount of lagophthalmus is produced. From the obliteration of the glands of the conjunctiva, the normal secretion is destroyed and the surfaces may become rough and dry, thus we have xerophthalmia. On account of the atrophy and shortening of the conjunctiva the tarsus becomes incurved and we get inversion of the lashes and edges of the lids, (Fig. 14. b.) which complication still aggravates the already existing pannus by constant friction of the lashes and the edge of the lids against the cornea. Those of you who have had experience with these diseases, know how very obstinate they are to ordinary treatment. For inveterate cases of pannus Dr. Wells recommends, as a last resort, inoculation of the conjunctiva with virulent pus, as gohorrhœal pus, but at the same time he warns us against the dangers of this mode of treatment. Not only is there danger of suppuration extending to the different tunics of the globe resulting in pan-ophthalmetis, by the inoculation of this virulent virus, but there is also danger of inoculation of syphilitic poison, for in using gonorrhœal matter there is a liability of its being tainted with syphilis through a chancre, existing perhaps in the urethra where it is not observed by the surgeon. Besides, gentlemen, the results from this mode of treatment are by no means satisfactory and at best, it is a painful, disagreeable mode. Syndectomy if properly performed, I believe yields far better results in a much quicker time with scarcely any pain or discomfort to the patient, and besides it is in no way dangerous to the eye or to the constitution.

The operation of syndectomy consists in removing a band of conjunctiva together with the subconjunctiva about one-eighth of an inch wide, around the cornea.

My operation is as follows:

After anæsthetizing the patient, I separate the lids with a stop speculum, then with a fine rat-tooth forceps pick up the conjunctiva with the subconjunctiva and with my compound curved scissors (Fig. 10.) snip through both, one-eight of an inch from the margin of the cornea and extend the incision quite around the cornea as represented in (Fig. 12. b.) then with the iridectomy

knife dissect the detached band clean from the sclera up to the cornea, then remove the flaps cutting close to the cornea in short snips with flat curved scissors. (Fig. 11.) If there are any blood vessels remaining upon the sclera and extending to the cornea they should be severed with the iridectomy knife, care being taken not to cut the sclera.

AFTER TREATMENT.—Apply cold compress over the eyes for thirty-six or forty-eight hours, these compresses should be changed often. The patient should be kept in a dark room for a few days. A solution of atropia one to four grains to the oz. may be dropped into the eye once or twice a day. In making this operation we not only cut off the nutrient vessels to the cornea, and thus remove the blood supply to the pannus, but we accomplish still more for, by detaching the conjunctiva from the margin of the cornea, by virtue of its elasticity it slides back on the globe, reestablishing the retrotarsal folds or *cul de sac*, relieving the tension of the lids, and thereby correcting the entropion as well as the symblepharon and lagophthalmus. (Fig. 14, dotted lines.)

The band of removed conjunctiva is replaced in a few hours by a proliferation and exudation of conjunctival elements from the portions of the cellular layer of the conjunctiva not removed in the operation. This neoplastic band is formed in about twenty four hours after the operation, being independent of any granular process, and is therefore not of a cicatricial nature, but resembles the normal conjunctiva. Summing up; we find, first that the operation cuts off the blood supply to the cornea; second, it lengthens the conjunctiva and thereby restores the retrotarsal folds, removing the lagophthalmus and entropion; and third, it tends to restore the conjunctiva to its histological condition, by the new portion taking the place of the diseased, (Fig. 13).

As a proof of the good result of this operrtion, I will briefly mention a few of the cases upon whom I have made syndectomy within the last few months.

The first, Robert McC. from Clyde, Kansas, æt. 39, yrs. Irish descent, occupation, farmer, light complexion, blue eyes. When this patient first visited me, July 17th, 1881 he could only discern light with the right eye; with the left he could but count fingers. He was suffering with a good deal of photophobia and epiphora with phlyctenular keratitis.

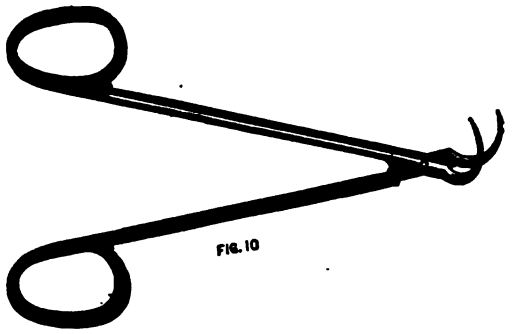


FIG. 10

Dr. Tiffany's Syndectomy Scissors.

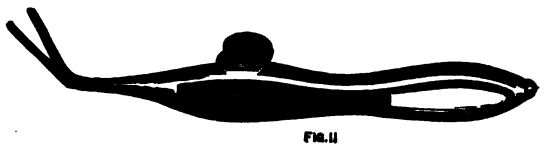


FIG. 11

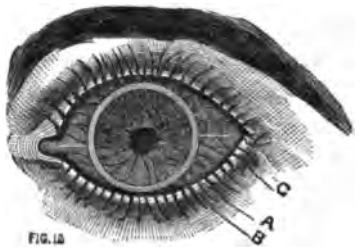


FIG. 12

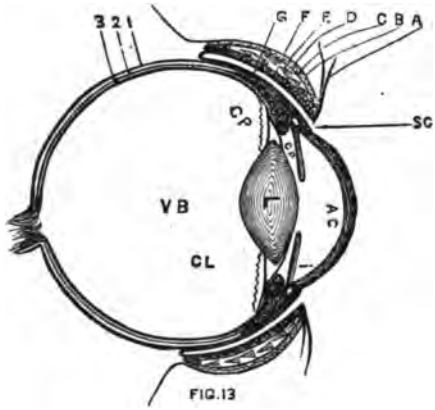


FIG.13

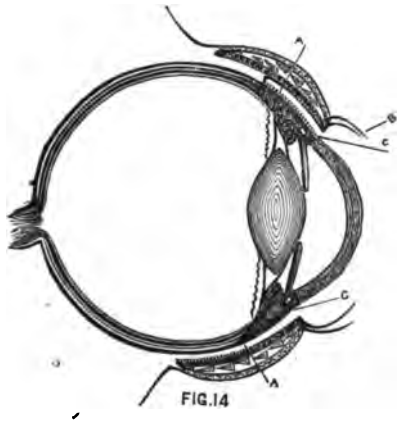


FIG.14

In two weeks after the operation he could see to make change; when he returned to his home. After one month he was able to read print (large), sight gradually improving.

CASE II.—Mary K., Burlington Kan., age nine years, American, brown eyes. This little patient had suffered from trachoma since infancy; in fact, she had ophthalmia neonatorum, from which she never entirely recovered, as the disease had been allowed to develop into granular ophthalmia with many of its complications. When she visited me Jan. 22nd, 1882, she was obliged to be led into the office; not being able to count fingers. The cornea was a mass of blood vessels, and the photophobia was so intense, she was wholly unable to tolerate a ray of light. She would sit with her face buried in her mother's lap most of the time, or else covered with her hands, and on any attempt to open the lids, a violent paroxysm of sneezing would ensue. The mother told me the child had never been able to open her eyes or raise her head, always being obliged to go with her eyes partially closed and with her head bowed. The operation relieved all these symptoms and the patient is now able to walk with head erect, eyes open and unprotected, and to-day, (March 26th) can see to read the finest print.

CASE III.—Charles L., of West Port Mo., light complexion, blue eyes, age forty-one years. This patient had had repeated attacks of granular ophthalmia, the last being brought on by working in the dust of a threshing machine, a year ago last autumn. At the time he first consulted me, Feb. 15th, 1882, he was obliged to be led about, only being able to see the outline of an object, as the hand, when passed between him and the light. In this case the eyes were blood-shot, the conjunctiva seemed to be a perfect net-work of engorged blood vessels, which extended over the cornea, completely obscuring the pupils of both eyes. I immediately made syndectomy.

To-day, (May 8th,) there is barely a trace of pannus left, some withered vessels remaining, (March 26th, 1883, the cornea is entirely free from vessels, and is clear and smooth) the diffused keratitis nearly cleared up, and the symblepharon is entirely removed; the ocular conjunctiva is clear and white, and to-day, (June 6th, 1882), his sight is nearly perfect. (March 26th, 1883, he can read the finest print).

CASE IV.—John F., of Colorado, age sixty-six years, Irish and German descent, blue eyed, was led into my office June 20th, 1883.

History as given by the patient: "In July, 1859, my right eye got powerful sore, and in a few days the left took the same way. The eyes swelled bad and run a good deal of matter, and the eyes have never been well since. For twenty-two years I have not been abe to see enough to read or write."

DIAGNOSIS.—*Pannus, symblepharon, leucoma, ankyloblepharon lagophthalmus and entropion,* besides an obstruction of the lachrymal ducts. All these troubles probably resulted primarily from purulent ophthalmia, which he most likely had in '59. Vision of the right eye, only perception of light; vision of the left eye, could count fingers dimly, six inches away.

TREATMENT.—In this case I made a modified syndectomy. Instead of removing a band of conjunctiva from around the cornea, I made the incision quite up to the margin of the cornea, for in this case I wished to retain all the existing conjunctiva possible, as the retrotarsal folds were nearly obliterated; the palphrebral conjunctiva being adherent almost up to the margin of the lids with the ocular conjunctiva, producing in the right eye a great amount of lagophthalmus (or inability to rotate the eye).

After freeing the conjunctiva from around the cornea, I divided the same on both sides from the cornea to the canthi, shown in (Fig. 12, c.) There being some ankyloblepharon, I extended the external incision through the orbicularis, palpebrarum, thereby enlarging the palpebral opening. I then shoved the freed ocular conjunctiva back from the globe, folding it back upon the tarsal cartilage of the lids, as is represented by the dotted lines in fig. (14). For the entropion I made a deep incision from the punctum lachrymale to the external conthus near the margin of the lid, going through the conjunctiva and tarsal cartilage from within outwards. I also removed a section of integument from near the margin of the lids; I then slit up the canaliculi and relieved the obstruction of the ducts, by passing a probe into the nasal ducts.

The after treatment consisted in the application of cold compresses over the eyes for forty-eight hours.

RESULTS.—The third day after the operation the patient could

see to count fingers with either eye, several feet away, and could see to name objects in the room. After the fifth day he could see to find his way alone to and from the office, without difficulty. To-day, (March 26th,) he is able to read large print, (2 line great primer). The pannus is gone, the opacity of the cornea is clearing up, and the other complications are removed.

The cases reported are fair exponents of the results which I have obtained from this operation of syndectomy. Of the twenty-eight times (being the total number) that I have made this operation, I have not had a single case where there were any untoward results, and in all but one single exception the results have been most brilliant.

ARTICLE XLVIII.

REMARKS ON DIPHTHERIA. By E. BENKENDORF, M. D., of St. Louis.

The symptoms which we observe in this disease characterize it as a local or general affection. As long as the pathological condition is solely confined to the throat and merely reacts upon the system by producing signs of exhaustion, we may look upon diphtheria as a local disease. When, however, the general debility has become complicated by the appearance of albumen in the urine, we have proof that the general system is infected by the poison that produced the local affection, or is infected from absorbing the poison which is generated in the throat.

Another grouping of the different cases of diphtheria may be chosen by speaking of the latter as a catarrhal, or as a genuine diphtheria.

The catarrhal variety is a simple catarrhal affection of the throat, superadded to which there are a few diphtheritic patches generally to be found imbedded in the outlets of the excretory ducts of the tonsils. These patches do not so very tenaciously adhere to the mucous membrane, and can readily be removed by scraping with a suitable instrument. This kind of diphtheria yields to mild treatment, and has no doubt, established the great

reputation of chlorate of potash. A spray of warm water at the same time will remove the catarrhal secretion and with it the diphtheritic patches.

The genuine diphtheria, on examination, shows the throat to be covered with sticky false membranes, often even extending below the pharynx. The weakness of the heart is very marked and the difficulty of deglutition is seldom caused by tumefaction, but more often by enervation and the want of healthy secretion.

CAUSATION.—We know of no remote or immediate causes operating from without or within in such a way upon the individual as to change his physiological condition in such a manner as to produce the local pathological condition of his throat. We must therefore accept the local condition of the throat in itself as the cause of the disease, and explain it as being produced by a deposition of "bacteria," on the mucous membrane of the throat. Naturalists have given the name of "bacterium" to a little animal germ floating in the atmosphere. What conditions of the air are necessary to favor the increase of these germs is not known with certainty though a want of ozone is held by some observers to be responsible for it.

PROGNOSIS.—All cases of genuine diphtheria do not warrant a positive prognosis at the commencement of the disease. The constitution of the patient can only negatively and not positively contribute to the recovery of the patient and *caeteris paribus*, the strong and the weak have the same chances of recovery.

The immediate cause of death is found to manifest itself in the weakened action of the heart. This debility cannot be sufficiently kept in check by nourishment or stimulation and therefore the skill of medical art must be employed, to get rid of the local infection with due reference to the removal of all adventitious causes of debility, and if possible we must add to the general inervation by appropriate therapeutic measures.

CONTAGION.—Regarding this, it is well to remember that genuine diphtheria of one person may infect another person so as to produce the catarrhal variety and this latter affection may be the cause of inflicting genuine diphtheria upon some one else.

THERAPEUTICS.—Every year brings new remedies or establishes the trustworthiness of one remedy over another one.

Antiseptic remedies of a local and general application, combined with stimulation, form the basis of the treatment of to-day. Anti-inflammatory treatment has fortunately been discarded and it will be difficult to prove that quinine in large doses can do good, although it may be proven to do positive harm if the asthenia of the heart is considerable.

LOCAL REMEDIES.—1. Warm water. A spray of very warm water every few hours is sometimes followed by softening of the false membranes and improved condition of the mucous membrane. Its stimulating influence can also impart itself to the whole general system.

2. The application of ice and cold water must be regulated by the amount of warmth and vascularity in the neighboring parts of the throat. I would consider it an open question, whether ice could have a direct destructive influence on the life of the bacteria.

3. Local application of salicylic acid.

4. Spray with pilocarpine once to be used at the commencement.

5. Carbolic acid either alone or in combination with other antiseptics.

6. Papain.—This is comparatively a new remedy and is said to possess the quality of dissolving human flesh and membranes in a short time. A solution of papain or vegetable pepsin will destroy diphtheritic membranes, sometimes in a few hours. It is asserted by French physicians, that papain will not only dissolve the false membranes, but also prevent their reformation.

7. Solution of manganese is an old remedy and has found new defenders.

GENERAL REMEDEIS.—1. Carbolic acid.

2. Listerine.

3. Benzoic acid and its salts.

4. Cyanide of mercury. It is well known that mercury destroys low animal life. As it becomes absorbed and is excreted in the mouth, it may be ranked, not as a general remedy, but as a local poison to the bacterium.

5. Oil of turpentine in large doses. Cures by the same, must be ascribed partly to the great amount of oxygen which this oil has the power of absorbing whilst exposed to the air also partly to the alterative power it is known to exert on mucous membranes.

6. Manganese.—This remedy must be classed with the preparations of iron.

7. Pilocarpine.—This is one of the most interesting new remedies, the immediate effect of which is salivation, diaphoresis and diaresis. It is used internally and also subcutaneously. Gutmann, a few years ago, recommended it as a specific against diphtheria. Later observations have not proven this laudation, but the efficacy of the remedy has sometimes been proven in my own practice. It is wrong to prescribe it in a case accompanied with great debility of the heart, for pilocarpine is known to produce, sometimes, great debility of this organ. At the same time it is encouraging to know that the debility of the heart, produced by pilocarpine, will in a very short time, subside, if the heart was not previously debilitated from the effect of the disease. The physician may make his calculation accordingly.

PRIVATE OPINION.—I am in favor of giving such internal remedies as can be given with impunity, in sufficiently large doses as to act locally on the throat during the act of swallowing. Boiled milk and warm beef tea with sherry wine, ought invariably be administered from the start.

Translations.

Article XLIX.

FROM THE FRENCH.

A Ready Method of Obtaining Local Anæsthesia. By Dr. Cheize. [Translated from the *Jour de Med. et de Chir. Pratique*, for the Journal.] By S. Pollak, M. D. of St. Louis.

Among the difficulties which surgeons in this country frequently encounter, and must promptly overcome, is the paucity of surgical instruments and appliances. The want of a Richardson atomizer I had recently to supply in the following manner:

A young girl presented herself with inverted toe nails and solicited an immediate operation i. e. extirpation. I imbibed with ether a piece of cotton wadding of the size of five francs, and placed it upon the big toe, and with a common hand bellows, I blowed on it for a few minutes, until complete evaporation had taken place. I saturated the cotton wadding a second time, and again manipulated the bellows. In less than five minutes, anæsthesia was complete. I extirpated the ingrown nail, and applied to the matrix the actual cautery without the patient experiencing the least pain. I had to exhibit the extirpated nail in order to prove to her that the operation was performed. This is an anæsthetizing apparatus of the greatest simplicity, and within reach of any one. Is it new? I do not know. It is certainly very simple. Country practitioners may find it of great value.

Biology.

Relative modifications, which divers destructive agents, physical as well as chemical, exercise upon the systematic *chardou* or *mitzbrand*. The resistence of the dry virus is very much greater than that of the fresh or moist virus, and the virulence of the culture of bacteria is not always dependent upon their mobility; these can almost remain harmless, even if yet so active and lively, by pouring a certain quantity of eucalyptus upon them. Putra-

faction and cold are without effect upon the microbes. Whereas a temperature of 80° for two hours, or of 100° for 20 minutes will utterly annihilate the activity of bacterian virus. The inequality of resistence of dry and fresh virus is still more manifest when either is brought in contact with antiseptic substances. Dry virus at 32°, and therefore richer in spores, remits liquid such as camphorated or phenoled alcohol, or oxygenated water, quick lime, borax soda, sulphurous acid, or vapor of chloroform. The most energetic agents are: corrosive sublimate, nitrate of silver, and phenic acid. They kill the dry as well as the fresher moist virus, the latter can also be affected by permanganate of potass, chloral and essence of eucalyptus.—[*Progres Medical.*

RELATION OF THE SYMPATHETIC GANGLION TO VASO-MOTOR NERVES.—Morat demonstrated the presence of vaso-motor centres in sympathetic ganglions. The inferior cervical, and the first thoracic glanglion receive constricting and dilating nerves. The first are furnished by the medulla, and the second by the eighth cervical and the first dorsal pair. Experiments have plainly shown the action exercised by the constricting and by the dilating nerves.—[*Progres Medical.*

NERVES USED FOR LIGATURES OF BLOOD VESSELS.—In nerve tissue has been found a substance more resisting, less brutal, and quicker absorbed than catgut ligatures. The carotid of a horse and of a dog has been ligated with the sciatic of a calf. At the autopsy, the occlusion was complete. The artery was strangulated, not cut, and the nerve completely absorbed. The neurilemna gives it all the necessary resistance, and the coagulated mycline allays the ligature.—[*Lyon Medical.*

POISONED BY CHLORAL.—One ounce of chloral hydrate dissolved in water was administered to an epileptic. In five ninutes the patient was profoundly asleep. As soon as the error was recognised the stomach pump was employed and strichnia and alcohol injected. But it seems the larger part of the chloral was already absorbed.

Sleep lasted 48 hours without any other outward symptom. On the third day a general scarlatinous rash appeared. The bucal mucous membrane was very sensitive for a long time. The epileptic seizures were less frequent after that.—[*Ibid.*

Clinical Lecture.

Article L.

Extracts of Clinical Lectures Delivered by Edw. Borck, A. M., M. D., Prof. of Surgical Diseases of Children, and Clinical Surgery, College for Medical Practitioners of St. Louis, Mo. [Reported for the Journal by H. Marks, M. D., of St. Louis, Mo.]

Gentlemen: Here I present to you a little girl six years old. The mother gives the following history: When the child was about nine or ten months old, the mother thought there was something wrong with the baby's arm; she sent for a physician who examined the baby and he pronounced it a dislocation of the shoulder joint, and attempted to reduce the same, without success, working with it for more that one hour. He labored so hard that the sweat broke out upon his brow, running down his face and beard, and thus exhausted himself and the baby; the cries of the latter were most pitiful. I am not able to tell you whether the doctor's sweat was produced by the hard work that seemed to be required to reduce this child's dislocation or through some other cause, at any rate he gave up the job, with the remark that, such a hard case he never encountered before, not even in Vienna; prescribed some medicine internally and left the patient to its fate. The arm did not improve; a good deal of inflammation set up, other doctors were consulted from time to time, liniments were applied, etc. At last some physician diagnosed paralysis, and promised a cure by electricity; it was faithfully tried, but without any benefit whatsoever.

Now you will observe here, that the right arm is pending loosely down the side of the body; that the posterior side is anteriorly; the fingers are not contracted, she used them and the hand and the forearm to some extent; the arm is atrophied, the upper arm the most so. In taking hold of the arm, you see, I can make passive motion in all directions with ease; the child is otherwise healthy.

Now, we may think, upon first sight, that we may have here a case of infantile paralysis before us, but by closer inspection we will observe that this arm is somewhat longer than the one on the other side of the body. We will also observe the flattening of the shoulder, the contour presenting the appearance of a dislocated shoulder. If I now run my finger along and below the spine of the scapula outward, I can reach the head of the scapula; I can also feel the relaxed capsula ligament, to which the upper end of the humerus is attached.

Through the weight of the arm, the capsula ligament became elongated. You also see that I can bring the arm into its natural position with the greatest ease, reduce the same and then the flatness of the shoulder disappears, and the natural roundness and fullness is reproduced, but it will not remain so; if support is removed it immediately drops again. Running my finger over the clavicle, I find here a distinct elevation, an overlapping of the bone, telling me that some time during this child's life there must have been a fracture of the bone.

Now, I wish you all to come forward, one at a time, and examine this patient carefully and closely. This one case will teach one more than any text-books can do; practical observation makes one expert. Feel the upper extremity of the humerus in particular, and notice its shape.

You having all examined the patient, what is your diagnosis now? Answers, a non-reduced dislocation.

This is exactly what I expected the answer would be; it comes near to it, for many of the symptoms are present.

But I beg leave to differ with you, and will say that I believe there never was a dislocation, and for the following reasons: We can feel the upper extremity of the humerus through the surrounding capsular ligament, but its surface is flat and rough; that smoothness and roundness which characterize the head of the humerus is absent, the ligament is stretched, and has become elongated by the weight of the arm, and feels like a rope. We can twist and turn the arm in any direction. We can also feel the head of the scapula but the glenoid cavity is not distinct.

If we now remember that ossification does not commence before the second or third year, and that it is not before the fifth year that the centers of the head and tuberosities become joined, to form a single epiphesis, and that these do not become united until the twentieth year, and that previous to the beginning of

ossification the extremity is but cartilaginous. We can readily understand how easy such a joint may be disturbed and permanently injured, at the tender age of nine months.

From this I judge that originally there was but a separation of that part of the epiphysis that forms the head, and which by inflammatory process, was completely absorbed.

What can be done for this patient? very little! however, I shall have her brought back again and I will try to devise some kind of apparatus to support her upper arm in such a manner that she may have a better use of her forearm and hand.

Here is another little girl, also six years. You see it is a pretty and intelligent child. Now observe how she walks; also take a good look at her right arm. The history is this: When about one year old, the child was paralysed, "hemephlegia" without any preliminary sickness; generally the upper extremity recovers nearly perfect, the lower hardly ever; in this case the arm never recovered. You see the position of the arm, how it is pending down the side of the body; like in the first patient, the posterior surface is turned anteriorly; but notice, the fingers are contracted, she has no use of them. Now, look at the shoulder, it has its natural contour, though the whole limb is atrophied and cold. The leg is also atrophied, but not to such a degree in comparison to the arm; why? because the leg has been put to use in the best manner possible. You see there is a Talipes Equinus, and also a Glenu recurvertur, the manner in which these deformities are produced, I have already explained my theory to you in my lecture last Tuesday.

The guardian states that everything has been done for this child, in the way of internal and external treatment; a large number of physicians have been consulted, and here is the result: "There is nothing in our possession that can bring relief." A change of climate was also recommended and taken advantage of, without a particle of benefit.

There is one point I would like to call your attention to: the lady remarked that the majority of the doctors consulted, consoled the parents with the prescription that the child will outgrow it in time. Such statement, no doubt you have heard in your practice, and I hear it over and over again.

But let me tell you, no one that is acquainted with this hor-

rible disease, would make such a statement and thereby reflect discredit upon himself and deceive his patient.

No internal treatment is of any use; the mechanical treatment is the only means that may bring some relief through the agency of support, and if employed, employ it early. Follow not the erroneous idea—to wait until the child is a little older, and thereby lose all the advantages that nature has placed at your disposal. Never neglect to examine the knee and hip joint whenever a patient with deformed feet calls upon you for advice. The reason for this precept, I have fully given you before.

[TO BE CONTINUED.]

Proceedings of Medical Societies.

Article LI.

ST. LOUIS MEDICAL SOCIETY.

Taken by the Journal's Stenographic Reporter.

Saturday March 10, 1883.

Dr. Dean.—I have a specimen here which may interest the members. This is a specimen of aneurism of the aorta. The patient was a sawyer or raftsman. He entered the hospital on October 24, 1882, to be treated for malarial fever. He said that while cutting the pickets, he had suddenly felt a pain in the abdomen. Upon examination at this point, a rigid tumor could be felt in the left side. He improved under the use of iodide of potassium, and left on November 13, against our advice. He was admitted again on the 15th of December and in the afternoon was delirious, and he had violent muscular spasms. He left again on the 21st of the same month and was admitted again on the 27th. He left again, against our advice, on February 11th, and returned on the 18th. On March 8th, he died and the post-mortem showed that there were two aneurisms, nearly connected, of the aorta. In the upper or smaller one, of which this is about one-half or two-thirds, was a clot about an inch in diameter, it rested on the ninth and tenth dorsal vertebræ. The other aneurism, which contained this large clot, was on the bodies of the twelfth dorsal and the first and second lumbar vertebræ. It involves the cœliac axis. The right kidney was small, the left being much larger; this, I suppose might be accounted for by the compensatory action. The other specimen was taken from a patient who was admitted to the hospital and gave the following history of his trouble: About eighteen days before, while eating hash, he swallowed a piece of bone, and after that time he had pain upon swallowing, so that he was unable to swallow solid food. He was admitted in the evening, and in the morning he vomited some blood. Upon a slight effort he would vomit a large quantity of blood. I gave him water to swallow and ausculated the œsophagus. I could hear a little gurg-

ling by placing my ear between the shoulders; but could detect the presence of no hard body by the use of the whalebone bougie. The patient died, and on making the post-mortem, it was found that the bone had caused an ulceration of both sides of the œsophagus about an inch above where the left subclavian artery is given off. The ulceration did not pass quite through the œsophagus on the right side, but on the left side and very near the subclavian artery it was penetrated. We could not find the bone anywhere. It is possible that the blood drove the bone back into the alimentary canal. At any rate we did not find it. The specimen shows the ulceration.

DR. POLLAK.—How long after the injury was it when you first saw him?

DR. DEAN.—He said about eight days after he supposed he had swallowed the bone.

DR. DICKINSON.—Did he suffer any pain?

DR. DEAN.—No; nothing remarkable.

DR. JOHNSTON.—Was there any venereal taint?

DR. DEAN.—Nothing that we could detect?

DR. PORTER.—I am sure these cases are complete in themselves. I never hear of a case of aneurism of the abdominal aorta without recurring mentally to a case I saw on the post-mortem table—or rather just previous to the post-mortem. I was called suddenly one night to see a gentleman who had fallen dead on Washington Avenue, near where my office was. I could gain very little information from the family except that he had at times great pain in the back, and had been treated in New York, for some disease of the nervous system. By means of a careful examination this physician had diagnosed some irritation or injury or some inflammation of the spinal cord, and for that the patient had been treated a long time with some relief of his symptoms. The post-mortem showed a large abdominal aneurism; it was of great extent, and had destroyed the bodies of the last two dorsal vertebræ, I think. I don't remember the exact anatomical position, but I believe it was the last two dorsal, and there was some pressure upon the spinal cord. The specialist in New York has found the complication but had not found the cause of it. He had not found the aneurism which produced the

pressure and irritation of the spinal cord. It was a most interesting case, and one that teaches us this lesson: that although we may find the local lesion, we should look carefully for the cause. There was trouble in the spinal cord which was relieved by local treatment to some extent, and yet the case of aneurism doubtless caused a well marked bruit, which might probably have been detected on careful examination.

DR. LAIDLEY.—I saw the case that Dr. Porter referred to. The case was treated by a prominent physician in this city, for hypochondriasis, involving a good deal of trouble on the part of this doctor, because he had told the patient's wife there was no danger in the case at all; that nothing would grow out of it.

DR. JAMES.—The instrument that the specialist used was a surface thermometer, a very valuable instrument. My attention was called to the value of the instrument by that case.

DR. BLOUNT.—I wish to ask the speaker if I understood him to say that the special trouble was diagnosed by the use of a surface thermometer?

DR. JAMES.—Yes, sir.

DR. BLOUNT.—Will you please explain how that is done. I don't understand how he did it.

DR. JAMES.—He diagnosed it by the slight rising of the thermometer at that point, there was a slight elevation of temperature.

DR. JOHNSTON.—Henckler, it will be remembered, first demonstrated the value of the thermometer in all cases of local inflammation, so that we may not be deceived in examining the surface with a thermometer. For instance, we may have a case of coxalgia, and the pain is not near the seat of the trouble. Henckler demonstrated, twenty years ago, that by the use of the thermomoter we could determine the site of the inflammation. The point of irritation is indicated by the rise in the temperature. Thus we are not deceived by the local pain which may be one place and the disease at another, as is in the case of coxalgia.

DR. DEAN.—Some years ago a gentleman in New York, who had that hobby, wrote a work on indications of the thermometer. I had occasion to try his instrument and found that the weight of the instrument itself, when placed on the surface, would raise the mercury a half a degree, a very little pressure making the mer-

cury rise. I think that unless the instruments were very accurate, and so made as to guard against pressure, their own weight on the surface would render the indications very fallacious; and I think that comparatively few of these surface thermometers are made well. They will not agree with each other. There certainly must have been a great many mistakes made on the strength of bad thermometers.

DR. JAMES.—I think it is an easy matter for the person using the thermometer, to guage it by a little care. Of course, the mercury would rise if he used any pressure, but that would only be a certain amount, and this could be subtracted from the temperature of the body. It seems to me that that would be no objection. I am satisfied that pretty much all the thermometers that are purchased in the stores are incorrect, and have to be seasoned; the glass itself in the surface thermometer, shrinks and alters and changes, so that there may be a difference of a half a degree, after keeping it a few months. This is so evident that some instrument-makers season their thermometers; they keep them a certain length of time before they grade them, in order that the changes may be taken into consideration in grading. There is no difficulty in making an instrument sufficiently correct for all ordinary purposes.

DR. DEAN.—I have had some experience in this matter of thermometry. A gentleman went to one of the foremost instrument-makers in New York, and asked him if he could make him a perfectly accurate thermometer. He was told that it could be done. He then asked: "What will you charge for it?" The instrument-maker said, "thirty or forty dollars." The gentleman said, "make two." The instrument maker replied, "I won't do it." Some years ago I went to an instrument-maker and told him to make me two correct Hicks' thermometers; and they said they couldn't make them; however, I had one made, and when my instrument came, it was one-tenth of a degree too low through the whole scale. Sometimes they are too low at certain points, but this was too low throughout the whole caliber. My thermometer was certified to as correct and yet it was a tenth of a degree too low. From my experience I am satisfied that not one-third of the thermometers in use are correctly seasoned. The best instrument-makers keep them two or three years before grading them at all.

DR. JOHNSTON.—The last gentleman has used an expression that I cannot understand: that pressure increases the temperature, that pressure upon the thermometer would cause an increase of temperature, and I would ask an explanation of the expression used.

DR. DEAN.—The bulbs of most thermometers are made so thin that it is not safe to press them; a thermometer is injured by pressing the bulb; and in these surface thermometers where the bulb is almost as thin as tissue paper, you will find that by pressing upon the thermometer you will drive the mercury up the small column.

Excision of the Astragalus for Compound Dislocation and Fracture. By A. H. Meisenbach, M. D.

The subject and case presented for your consideration this evening, *Excision of the Astragalus* for Compound dislocation and fracture, is one although not rare in medical literature is one not of common occurrence, and forms one of many a class of cases which present points of great interest to the surgeon, as well as to enlist his most earnest solicitation when the emergency calls upon him to treat such a case.

CAUSES.

The astragalus may be completely dislocated from its articulations with the tibia and fibula, scaphoid and calcaneum, forming the double dislocation of Malgaigne, or the astragalus may be dislocated from the scaphoid and calcaneum, retaining its connection with the tibia and fibula, forming an astragalo-calcaneo scaphoid, or that termed sub-astragaloid by Malgaigne.

The latter dislocation (astragalo-calcaneo scaphoid) is the form of dislocation for which I excised the the astragalus including the external and internal malleolus (commonly called ankle). Taking into consideration the anatomical relations of this bone, bound in its articulations to the surrounding bones by strong ligaments additionally strengthened on all sides by numerous tendons and their sheathes, it will therefore be easily understood that it will take a great amount of violence to disturb these relations and sever it from its articulations.

The force most usually productive of these injuries is that produced by falling from a height and striking upon the bottom

of the foot, accompanied by violent abduction adduction, flexion or extension, thus producing a dislocation inwards, outwards, backwards or forwards.

DIAGNOSIS.

This accident, especially when compound and complicated can be very easily recognised, when simple it is more difficult, nevertheless the lateral deviation of the foot together with the great prominence of the parts is enough to indicate its true nature.

PROGNOSIS.

According to Hamilton, "Owing to the great violence that is necessary to produce this injury, and without taking into consideration any unusual complications under the most favorable circumstances intense inflammation may be anticipated, and with few exceptions this has taken place. When reduction has been promptly and easily effected inflammation, gangrene and death have speedily taken place. But more often reduction has been found impossible, and complete removal of the bone or amputation has been immediately demanded."

The following synopsis of a case by Morris of Philadelphia, 1831, shows the imminent danger to which the life of the patient may be exposed in cases apparently most simple:

"W. S., admitted to Penn. Hospital for dislocation, outwards, the skin was not broken nor excoriated, but redened. Drs. Barton, Harris and Hewson attempted reduction without success. The astragalus was excised. Foot placed in fracture box."

"On the 5th day slough began to form on outside of the foot. On the 18th day opening was made to excavate pus near malleolus. At the end of eight weeks caries of bones of tarsus. Fifteen Months later the patient was suffering from hectic, with extensive disease in bones of the tarsus and ankle joint. Amputation performed and a few days later death resulted."

Here we have a case presenting the most simple form of this injury, no laceration of soft tissues, only a displacement of the bone, yet so complete as to baffle reduction without the most heroic of all measures, the use of the knife. But what a direful result! What an amount of suffering which ultimately ended in death.

Yet let me remind you that this was before the day of antiseptic surgery and I believe that under the present mode of

treatment the result would have been far different. We see therefore, that under the most favorable conditions there have been serious complications. The proness of the parts to slough, even after reduction has been effected, making the ultimate success doubtful.

The sub-astragaloid dislocation is produced by the same causes and subject to the same complications and prognosis as already given. Hamilton relates two cases of simple sub-astragaloid dislocations, in which the dislocation could not be reduced. Subsequent sloughing took place, the bone protruding. In both the bone was removed, In one after seven months of suffering with recovery. In the other, amputation was finally necessary.

From the history of this class of injuries it seems therefore perfectly justifiable for the the surgeon to remove the bone even in simple dislocation. And gentlemen, in a case of this kind if the dislocation did not yield to moderate force, I should unhesitatingly excise the bone rather than take the chances of sloughing and its doubtful train of symptoms.

In compound dislocation and fractures, excision and amputation are proper. Of course excision is at all events preferable if the channels of circulation are intact.

CASE.—Mr. S., æt. thirty-eight, foreman in a large wooden ware factory, on the 1st day of September of last year, stepped out upon an elevated platform; the plank upon which he stepped being unsound, gave way, precipitating him to the ground beneath, a distance of twenty feet. He fell, striking the bottom of his foot in such a manner as to produce an astragalo-calcaneo scaphoid dislocation and fracture, compound inwards.

I saw the patient, within an hour after the accident, at my office. The foot was everted. The astragalus and internal malleolus protruding through the wound two inches in length The protruding bones were so firmly impacted in the wound, and tendons so tightly stretched over the protruding bones, that it was impossible to make an attempt at reduction; I was also satisfied that the posterior tibial artery was severed, and therefore apprehensive that any attempt at forcible reduction might sacrifice the remaining channels of blood supply, the anterior tibial and perineal arteries. It was obvious also that operative measures must be done without delay, for swelling of

the parts would also endanger the integrity of the member, cutting off the vascular supply by strangulation.

My friend, Dr. Saunder, who kindly came to my assistance, was also of the same opinion. The Doctor administering the anæsthetic, I proceeded to excise. I carefully severed the internal lateral ligaments and the remaining ones, but still I could not remove the bone on account of the tension of the tendons that were stretched over it, but by severing a few fibres at their attachment, and getting a hook under them, I was enabled to slip them over the bone out of the way. With a few additional sweeps of the scalpel, I removed the bone. I now found that the inferior surface had been fractured, corresponding to the region adjacent to the astragalo-calcaneo articulation. I removed this also. I then sawed off the internal and external malleolus, beginning about one-fourth inch above the articulation. I next made a counter opening over the external malleolus longitudinally, about three inches in length. First, for drainage. Secondly, so that I would gain room through which to remove the superior articular surface of the calcaneum; my object in doing this was to obtain a corresponding cut surface of bone to which to approximate the cut surfaces of the tibia and fibula, thereby aiming at a better result, should stiffness or ankylosis ensue (the latter result, I anticipated,) than if I approximated two uneven articular surfaces; such as the superior articular surface of the calcaneum and articular surface of tibia and fibula.

I found it a very difficult and tedious operation to remove the articular surface of the calcaneum, having to pass the saw through the openings over the internal and external malleoli, for on account of the deep seatedness of the bone, I could not turn it out (evert it), and furthermore, having to be extremely careful not to lacerate the surrounding tissues. I removed about an inch square of the articulating surface.

Reviewing the operation at this stage, I found that I had an appalling wound through which a doubled fist could be pushed, the foot only attached to the leg by two thin isthmuses of soft tissues, one posteriorly and the other anteriorly.

I packed the entire cavity of the wound with iodoform, using perhaps ʒj.-ʒij., and then introduced sutures and drainage tubes into both wounds on each side, using two drainage tubes at the internal malleolus and one at the most dependent portion of the external maleolus.

The wounds closed I placed several layers of carbolized gauze, into which iodoform had been rubbed, over the wound, encircling the foot. I now applied a posterior plaster of paris splint (as shown in drawing). When plaster had set I placed Lister's dressing over all, and over this an additional plaster of paris casing. Had the patient taken home, placed the limb in an elevated position and ordered one-fourth grain morphia *pro, re, nata*, every two hours.

Sept. 2nd, 8 A. M. Found patient pretty comfortable; pulse 92; temperature 100.—7:30 P. M. Pulse 96; temperature 101°; ordered bowels to be opened and prescribed a diaphoretic mixture.

Sept. 3rd, 9:30 A. M. Pulse 92; temperature 100°.—8:30 P. M. Pulse 92; temperature 101°.

Sept. 4th, 9:30 A. M. Pulse 80; temperature 99°.—8:30 P. M. Pulse 88; temperature 100°.

Sept. 5th, 9:30 A. M. Pulse 88; temperature 98°.—8:30 P. M. Pulse 88; temperature 98°.5.

Sept. 6th, 9:30 A. M. Pulse 80, temperature 98°.—8:30 P. M. Temperature 100°. After Sept. 6th, the pulse and temperature normal.

Sept. 9th. Chipped off outside plaster casing over site of the wounds. Found considerable discharge in the dressing, but free from any odor. Wounds looked very well. No swelling of the lips or adjacent parts, neither was there any swelling of the foot at *any time* during the whole period of treatment. I took out the sutures, removed the drainage tubes and washed out the wound with carbolized water, reinserted drainage tubes and reapplied iodoform dressing, and over this a modified Lister's dressing.

Placed the leg in swing suspended from the ceiling, in position shown (leg flexed with heel at most dependent part). This position, as will be readily seen, affords the most perfect drainage and lessen considerably, the danger of sacculating of matter in and around the wounds. Although this position was a little trying to the patient at first, he gradually became accustomed to it, and was very comfortable during the rest of the treatment.

Sept. 12th. Took off the dressings and found the wounds in good condition, discharge much less. Dressed the wounds twice a week and found no occasion at any time to change the plan of treatment.

At the expiration of about four weeks, I took the external plaster shell off on account of its becoming very loose, leaving the plaster splint in situ without disturbing the parts, binding it down by an ordinary roller bandage. The wound over the external malleolus had also closed.

The wound over the internal malleolus was much reduced in size.

There was very little necrosis of soft parts. I removed a plug of adipose and cellular tissue about half the size of one's thumb; neither was there any exfoliation of bone from any of the cut surfaces.

I gave the parts utmost rest, not using the probe to find out the condition of the bone. I consider the temptation to use the probe in granulating wounds with bone at the bottom or in cavities, a most pernicious habit, and one oftentimes productive of a great deal of harm, which latter fact, Hilton so admirably proves in his valuable work on "Rest and Pain."

Wherein he quotes numbers of cases where caries and necrosis of bone existed in joints and elsewhere, that were continually kept irritated by probing, and healing prevented, which, as soon as placed in proper position for rest and being left alone, speedily improved and were cured.

The posterior splint I took off, at the lapse of ten weeks when the wound had completely healed over the internal malleolus. At the closing stage of healing I frequently used nitrate of silver to expedite contraction and cicatrization of the wound. From this time on I had the patient gradually use passive motion and bear weight on the limb, so that at the end of four months after the accident he was enabled to walk by use of a cane. And now, six months after the accident, he has good use of his limb with 3-4 inch of shortening and at least 2-3 of original amount of motion.

The patient wears steel braces at the ankle but only as a means of protection at his work; for the work necessitates his crawling over and working between logs and in positions where the foot is liable to get a twist.

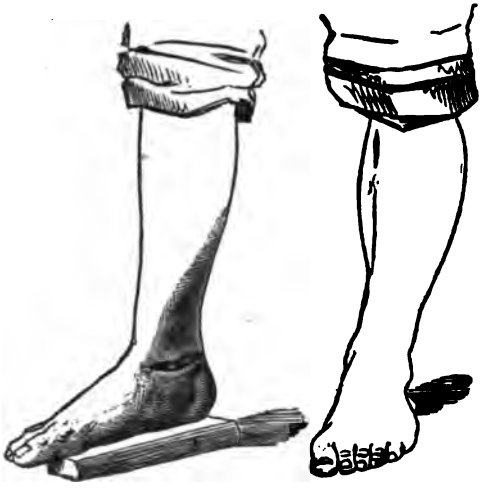
I will now for a moment consider, gentlemen, the main features of this case, and the points upon which the successful result, as shown you in my estimation depends.

1st. My patient being in the prime of life with an excellent constitution, and always having led a regular life. This gentleman

is the rock upon which success in surgery must have its foundation, without it the greatest skill is shipwrecked.

2nd. Performing the operation immediately; before inflammatory action had begun; for as already stated by Hamilton, we may in the most favorable cases expect a high grade of inflammation, and an analysis of cases of excision of the astragalus

Fig. 9.



The Cut (after photograph) shows the amount of shortening and position of wound over internal malleolus.

shows that the best results have been attained where it was done immdiately. Also I think the method of performing the operation cutting off the malleoli and articular surface of the calcaneum, this brought the parts more nearly in apposition, allowing a more perfect moulding of parts together, and the greater surface presented for granulation, afforded greater activity in development of fibro-plastic material.

3rd. The perfect adaptation and complete immobility of the plaster-paris splint, I think gentlemen also an important factor.

I think, that the value of plaster paris splints in surgery is well recognised, and nowhere are they of greater value than in excision and resection of joints. The constant tendency to move and shift of other forms of dressings on account of not being exactly moulded to the parts, I think oftentimes accounts for the want of success in these cases.

4th. The complete antiseptic condition of the parts I believe

is one of the most essential elementsin in the treatment, and to it a good share of the successful issue must be accorded. Here I would state that iodoform is the most powerful antiseptic that has been discovered, and that its general range of application is more extensive than any other at present at our command, notwithstanding the fact that its free use in large quantities, especially in cavities has in many cases developed toxic symptoms, yet this I consider of minor importance when compared with the immense value its use engenders, for this can be said of other potent remedies.

Dr. A. von Mosetig Moorhof, No. 211 *Volkman's Sammlung Klinischer Vorträge* in the resumé of "Der Iodoform Verband" amongst other makes the following statement: "Iodoform is such a powerful antiseptic that it needs not the previous application of other antiseptics for cleansing purposes. That the mere ablution of the parts with water is sufficient previous to its application." (and I do not even consider this essential. Cleansing the parts from all discharges with absorbent cotton and then applying the iodoform dressing, is a practice which I am in the habit of pursuing in the greater part of my cases and I get satisfactory results from this method.)

The author quoted furthermore states that "iodoform is the cheapest, surest, most enduring and easiest of application of any known antiseptic, and applicable to regions that are difficult of access, such as oral cavities, rectal region etc. Anyone having any experience in its use, can, I think, say "amen" to these facts; yet, not long ago I saw a statement wherein a party undertook to say that the only thing iodoform was good for was its smell. All that I can say in reply to such a statement is that the party did not know what he was talking about.

Thanking you, gentlemen, for your considerate attention, I hope that you can unite with me in thinking that this case adds another small leaflet to the laurel wreath of triumphs that decks the brow of Antiseptic Surgery.

DISCUSSION.

DR. DEAN.—Knowing that the doctor's paper would be read to-night, I hastily put in my pocket an astragalus I removed two years ago. Soon after we had two cases, in one of which there was a dislocation outwards which we were able to reduce. The young man from whom this specimen was obtained was the

son of a lady who had charge of a ladies school in Connecticut, and she wrote to a good many people, so that we were a good deal bothered by this one and that one coming, finally she wrote to me to give her an exact account of the man's injury, condition etc., which I did. I received no reply, and I suspected that the young man's parents were troubled. At last she wrote me that she had consulted the leading surgeons in the town where she lived who told her that if we had done as we ought to, and cut the man's leg off, he would have been well and out of the hospital inside of six or seven weeks. We got this man transportation and allowed him to go home to let the doctor cut his leg off. Five or six months afterwards I heard from them that he was able to walk and was getting along nicely.

Another case in which I was not so fortunate, was that of a man who was hurt by a railroad, in which there was a dislocation and fracture. I removed the astragalus and part of the malleoli; this man was with us something like a year, and was doing very well. He had been a hard drinker and had had tremens etc. at first however he was in a fair way to recovery, but finally insisted on going away. I think he thought the prospects were not sufficiently favorable for work. The next that I heard of him his leg had been amputated somewhere else. I am satisfied from my own experience that a good many of these joints can be saved so as to make the foot a great deal better than any artificial foot that can be be procured. I don't think that there is any especial way of operating, such as by the use of iodoform or other antiseptic. I don't think that I should like the form of suspension splint which the doctor has applied. I don't see what is to be gained by it. I think the drainage is not any better by placing the limb in that position, and it is a somewhat unnatural possition and must be very tedious to the patient. In the case I spoke of we simply passed a wire over the knee and applied a plaster of paris splint around the parts with a fenestra at the wound; in that way the limb was encased and suspended by a cord with no chance of moving at all.

DR. LOVE.—Dr. Meisenbach's case is a most interesting one and the result speaks for itself. It certainly is a very brilliant success. Some years ago I saw a case very similar. There was a dislocation and opening into the joint with fracture of the astragalus; the bone was resected, the parts brought into position

and dressed in plaster of paris. The union was by first intention. There was no suppuration at all and no untoward symptoms whatever. As a result there was motion in the joint.

DR. POLLAK.—Was some of the bone taken out?

DR. LOVE.—Yes, sir, and the result was quite as excellent as this.

DR. BORCK.—I would like to ask whether any gentleman present has ever seen a case like this, in which the astragalus was removed, in which there was no motion at all—in which there was perfect anchylosis?

DR. DEAN.—I don't think I have seen any such case. I would like to ask the doctor why he removed so much of the tibia and fibula.

DR. MEISENBACH.—In answer to the doctor's question I will say that the bones as I have shown, protruded very much and the amount of tension on the ligaments was much greater than I have shown. Perhaps I might have removed somewhat less than I did, but under the conditions at the time I aimed, in the imperfect light to strike the articular surface and take away just as much as was necessary. I might have gone a few lines closer than I did. I don't think this amounts to much. The amount of shortening was much less than a person would expect from the look of the the bone that I have removed. In regard to the question of Dr. Borck as to whether anybody has ever seen a case result in complete anchylosis, I will say that Turner, in Frank Hamilton's excellent work, records fourteen cases of excision of the astragalus in which I think, if my memory serves me right, in only one there was complete anchylosis. There was motion in all the others, more or less, though they do not say how much. I think the result in the case depends very much on the amount of motion. One may get union in the parts but there is not sufficient motion to counteract the natural tendency to stiffness. The ankle joint is one in which there must be a great deal of motion to make it at all valuable, otherwise the joint is of no account; there might be a slight fibrinous union and some motion. Therefore in the reports of these cases in which there is no record of the amount of motion they are imperfect. As far as this case is concerned I rather think from the history of the subject that the amount of motion is maximum. It is getting better every day, and at the

end of one year that patient will have a leg that he can use very nearly as well as the other. It is only six months since the patient sustained the injury. In all the other cases that are reported at least a year had elapsed from the time of injury to the report of the case.

DR. BRIGGS.—I would like to ask Dr. Meisenbach if he would care to remove the portion of the calcaneum?

DR. MEISENBACH.—In reply, I will say that in this case I got a better result—I got the surfaces more nearly approximated to each other—they are more nearly square to each other, and form more resisting surfaces to each other. That is the idea I wish to convey. If I were to do the operation over again I would do it just the same way.

DR. BRIGGS.—I will simply say that what I suppose takes place in most of these cases is that the cavity which is thus produced is to a great extent filled with adventitious tissue. I am speaking from what has been observed in other cases; in this case I should think it was a little doubtful how near the cut surface of the tibia approached the cut surface of the calcaneum. It is probable that they were separated by a certain amount of adventitious tissue and that the removal of the calcaneum was not of any particular advantage.

DR. HYPES.—I would like to ask Dr. Meisenbach if in performing this operation he did not so amputate the bones as to avoid getting an anchylosis in the joint; and if he were peforming the operation again if he would not leave a little more of the bone for the sake of getting a little greater movement in the joint?

I will say in regard to the use of antiseptics of various sorts that while I acknowledge their usefulness, we have some remarkable results without their use. I remember a case at the City Hospital; I don't know whether it is the one that Dr. Love refers to or not, at any rate there was a very remarkable result. A man was brought to the hospital—a very healthy looking young man about 25 years of age, perhaps, who had fallen a small distance, and in the fall his foot was turned outwards, completely rupturing the ligaments and soft tissue, so that the whole of the articulating surface of the tibia was exposed. This case didn't come to my ward, but was shown to me. Dr. Lankford saw the case and recommended that it should be simply stitched together,

and the parts put at complete rest, which was done by means of plaster of paris dressing, which was put over the wound without any antiseptics whatever, and the leg bound up and put at rest. This was not touched for some three or four weeks, and when it was unbound it was found that union had taken place by first intention. I simply relate this case to show that good results may be obtained in good subjects without antiseptics. I would like to have the doctor answer the question about the motion of the joint.

DR. MEISENBACH.—I think I can illustrate that with this drawing. You recollect the form of the parts. Here we have the internal and external malleoloi (referring to drawing). The form of this articulation is much higher at one portion than it is at another, and my object in removing that was to get two surfaces which when approximated would form a square basis so that when softening of the bone, and the tissues around it took place, should anchylosis occur we would have a firm anchylosis; and on the other hand, should a false joint be formed, I would have a better result than if I left those surfaces uneven. That was the hypothesis upon which I removed that articular surface of the calcaneum, and I think the result justifies the position. I think if I did the operation over again, as I said before, I should do just as I did and I think my results would be as good—everything being equal of course. There are certain possibilities which we have to figure on in surgery that we cannot determine beforehand. The question of antiseptics raised by Dr. Hypes can be discussed pro and con, yet I firmly believe that the success in these cases depends greatly upon the parts being kept in a perfectly antiseptic condition; and as far as my experience has gone there is no antiseptic that fulfils these conditions as thoroughly, especially where there is bone involved, as iodoform. I have a case under treatment now where there has been a fracture below the knee joint. The boy fell under a turntable. I placed that knee in a plaster of paris splint—a splint somewhat similar to that exhibited by Dr. Laidley in this Society some time ago, with some modification. The whole dressing was iodoform, I didn't use any water on it at all. Now in this case, although there is an abundance of secretion, there is no smell except of the iodoform. Another reason why I prefer it is because you can get it into crevice and corners. In this case I placed a piece of absorbent cotton in

the lower part of the splint to retain the secretions as they are formed, dressing the parts every three days. And I found that the cotton absorbed the secretion as fast as it was formed.

DR. DEAN.—The case related by Dr. Hypes reminds me of a case that come under my observation some tine since; a case in which a man was brought to the hospital who had a fracture and dislocation, and my idea was to put this leg in a splint at once. Some surgeon who was yisiting the hospital said it was probably better not to do so; and as it was the afternoon for the St. Louis Medical College clinic, I waited until Dr. Hodgen came, and he fully agreed with me that it was the best thing to do. I did so, and the dressing was not changed once, but I think the leg was not shrunken—not atrophied, and the result was a good one.

DR. HYPES.—There is one point that I would like to make in regard to that operation. It strikes me that by preserving the articular surface of the bones we would get a better joint—there would be more motion than by sawing then off and bringing the square surfaces together. Then another point that seems to me would argue in favor of leaving the extremities of the long bones intact is this; the joint will evidently be surrounded by tissues of an adventitious nature and it seems to me that the joint will be much firmer and better if those two malleoli come down one on each side of the new articulation.

SATURDAY, March 17th, 1883.

DR. DEAN.—I have a specimen of congenital deformity to present to the society, and although the medical and surgical history of the case is not pertinent to the specimen, I think it of sufficient professional interest to be mentioned in connection with the specimen.

The patient T. B., was a colored man—a hand-expressman—aged 50 years. He was admitted to the hospital drunk on May 8th, 1882, with twelve incised wounds, two of which were penetrating. One on the left side a little below the ribs and just outside of, or posterior to, the mammillary line, had had protruding through it a portion of the omentum, which had been returned, it was said, and pin sutures used: another wound some three inches below penetrated the abdomen. He insisted on going out on the 19th, of May, although not well; and we were compelled to

let him go. On Oct. 3d, he returned, well of his wounds, but with an "intermittent fever"; was very weak and low, had great difficulty in breathing, and a very rough cough. He was unable to give us much account of himself. He couldn't be made to expectorate. We wanted to examine the sputa, but he coughed and then immediately swallowed.

When the post-mortem was made by my assistant, we found an abscess in the upper part of the right lobe of the liver about three inches in diamater, and opening through the diaphragm into the lung; and another abscess filled with pus, about two inches in diameter, encysted or encapsulated by the so-called pyogenic membrane. The former abscess was nearly empty; and it appears that while it was emptied through the bowels, it had been emptied in an indirect way. Thus the abscess had not opened directly into the bowels, but into the lungs, and the pus was coughed up through the lungs and then swallowed, and then it passed through the bowels, and of course, escaped our attention. I will say that the man had diarrhœa. So much for the medical and surgical history of the case.

The kidneys we found were united in the lower part forming the so-called horse-shoe kidney. The arch was about half an inch above the bifurcation of the abdominal aorta. Both kidneys had ureters—the right two. There was but one renal artery which divided and went to both kidneys. This was given off from the aorta near the origin of the common iliacs. The kidney was not only horse-shoe shaped, so far as the union was concerned, but as it lay across the spinal column it also turned backwards so that there was another bend. It was united so that about half or perhaps a quarter of an inch of each kidney disappeared in the other.

This is the common union of kidneys when they are united; although they are sometimes united at the top. Sometimes the union is merely fibrous, sometimes half or more of each kidney is absent. It is usual that both ureters are present; there are sometimes supernumerary ureters. It is also usual when they are in this form that they are lower down in the cavity than is usual with the normal kidneys—somewhere down about the bifurcation of the aorta. In this case, as is usual with kidneys of this character, the ureters pass over the arch anteriorly; the kidneys being somewhat distorted across the hilus the pelvis of the kidney projects somewhat forward. It used to be taught that

there is very little or no danger from these kidneys, as is usually the case; but several cases have been reported, one some years ago, in which a thrombus was formed by pressure upon the vein, and the patient died through the circulation being completely cut off. Another case has been reported in which, during pregnacy the uterus so pressed upon the kidneys that stagnation in the ureters occurred and caused considerable suffering. At the next pregnacy; the patient was not so fortunate but died, and the post-mortem showed that the urine was stagnant in the ureters, and pyo-nephritis existed. Another case is reported in which a wrong diagnosis was made. The kidneys were over the aorta, and an exostosis of the lumbar vertebra pressing the kidneys and aorta forward, the pulsating tumor presented the appearance of an aneurism of the aorta.

So there have been some other cases reported of children dying with brain symptoms, in which, after death, horse-shoe kidneys were found. In my case the kidneys appeared to have caused no trouble, if we except the possibility of the liver abscesses resulting from embolism either from an anastomoses with the portal circulation or from the vena cava back to the portal vein, as has been suggested by some. It was formerly taught that the kidneys where originally united together and divided afterwards—the horse-shoe kidneys not dividing; but it has since been proven that they are developed originally almost in contact with each other, near the median line, and the union is the result of fusion. In man the true or permanent kidneys, as distinguished from the primary or primordial kidneys, are developed from the urinary as contradistinguished from the genital bodies of Malpighian system. Diverticula or collecting tubules shoot out from the upper ends of the ureters, into the metanephros, the *tubuli uriniferi* and Malpighian capsules being formed either by the extention and twisting, and the expansion of the ends of these tubules, or by the union of the latter with masses of cells of the metanephritic blastoma that differentiate into secreting tubuli and capsules; this blastema in either case forming the capillary network. The kidneys are at first, oval bodies, and soon divide into lobules that afterward coalesce. At birth the kidneys show the signs on their surface of the former lobulated condition; and sometimes in the adult the same rudimentary condition is more or less marked. The lobular form persists, as the normal or permanent one in some animals, in some, even, the organs being

divided into small lobules like bunches of grapes. The lobular condition of the embryonic kidney, in man, favors the union of the kidneys, in the so-called horse-shoe kidney, the lobules disappearing in each other, or coalescing.

DR. LOVE.—I have a specimen here—a limb which was amputated on account of a crushing produced by the wheel of a carriage. The child climbed on the back of a carriage, the limb caught in the wheel and being drawn in was carried around, the axle producing extreme crushing and tearing. I was called to see the case and found the child suffering considerably from the shock though entirely conscious and as brave as a hero, ready for whatever might be necessary to be done. Upon examination I found that the muscular tissue of the thigh was most fearfully torn and crushed and at first it was questionable whether it would not be necessary to remove it at the hip joint, but a desire prevailed to save as much as possible, and the tissues that were most crushed were selected and removed. Amputation was decided upon in the upper third. The limb was cut off, making a clean circular amputation and the parts drawn together with stitches, which were then covered with absorbent cotton, iodoform being used, the parts having been previously bathed in astrong solution of carbolic acid. Reaction took place very nicely. The point I wish to draw attention to in reporting the case is not the amputation; not the conservatism in leaving a longer portion of the limb than seemed at first advisable, and not amputating at the hip joiut, but it is the circular amputation and the subsequent management of the case. After the first twenty four hours the stitches were removed. The child's temperature was, of course, considerably elevated, but it was not as great throughout nor was there as much inflammation as I had anticipated, considering the amount of injury to the soft parts. A point that I desire to draw the attention to, is the fact that from the time of removing the stitches, bandages were applied to the stump down to the edge of the wound, making firm pressure upon the vessels and the parts, preventing absorption of whatever pus might be present, stimulating a free discharge, and preventing any pocketing or retention of septic matter. The case is doing admirably. There is no evidence of absorption; the discharge is free, pressure is well borne. Now this is a course that I have pursued in cases of amputation of the arm, fingers, etc., making

a clean circular operation and from the very start bandaging firmly down to the edge of the incision, only relieving or cutting the bandage when urged to do so by the pain, and generally not having to do so at all. This plan was suggested to me by a report by Dr. Linck of Terre Haute, Indiana, of a number of cases at the meeting of the Tri-State Medical Society two years ago, and his plan was similar to that which I have suggested, namely: to bandage from a point as high up as could be reached on the limb, and come down to the edge of the wound, putting nothing over it at all; simply leaving it without a covering of cotton or anything else. My experience has convinced me of the advantages of the plan suggested by him. I suppose in my case the bandage diminished the supply of blood to the part and limited the inflammation, and in the same way prevented the absorption of septic material; it has supported the parts well and prevented accumulations of pus. I don't know whether I have made myself clear in the statement of the case; but certainly in the majority of amputations I should pursue this method, making a clean circular operation, bandaging it from as high a point as can be reached, and leaving the wound entirely open so far as we can, so that we may watch it. We might throw a thin gauze over it, but that is not material. I have brought the specimen simply to show the amount of crushing.

DR. POLLAK.—What sort of pad do you expect to get?

DR. LOVE.—The pressure upon the muscles produces a disposition to cover the bone, and the scar will be in the centre. The result has been uniformly good, even in the finger; there has been no sensitiveness or tenderness about it, and the healing has been unusually rapid.

DR. HOLLAND.—The doctor seems to place a good deal of stress upon the point of bandaging from the highest point downwards: I would like to know the advantage of that sort of bandaging over the usual method of bandaging from the injury upwards? That is, the usual way of bandaging?

DR. LOVE.—The idea I desired to convey was that we should bandage from as high a point towards the end as possible; simply with the view of controlling the supply of blood to the injured part, and to prevent absorption in that way.

DR. HURT.—I recollect some years ago, I think it was when

I was in charge of the City Hospital, that I came across a case quite similar to this presented by Dr. Dean: a horse-shoe kidney. The subject was a male I remember, but I am not positive that I recollect what he died of. He didn't die of horse-shoe kidney. The functions of the kidneys were normal as far as we had made any observation on that point. He died from some other disease —some heart or lung trouble I think; and in making the post-mortem this condition of the kidneys was discovered. I exhibited the specimen before this society I think, pretty soon afterwards.

I want to say in regard to the specimen of amputation presented by Dr. Love, that I noticed the manner of expression as to the mode of bandaging that was mentioned by Dr. Holland, and it occured to me quite singular, but then as I began to philosophize in my own mind upon the subject it occurred to me that it was not an unreasonable method even if the doctor had done as he said he did; commencing as high up as possible, and bandaging downwards. The fact must be apparent to all that when the muscles are severed in the process of amputation, they retract, and one of the best ways of overcoming this retraction is by bringing the tissues down to the points from which they started when they were severed by the knife: is to begin above the belly of the muscles severed and bandage them—bandaging them from above downwards. Now what is the objection to this? If the blood vessels were intact, why, it would be very objectionable of course as the blood would accumulate in the parts below; but we must remember that in those cases of amputation the veins are covered with the muscles, and the process of amputating is from below towards the centre—from the periphery towards the centre, and before the bandaging commences the veins are emptied. It would be necessary to bandage unreasonably tight in order to do any injury to the arteries of course. Therefore I see no reason why in taking a rational view of this subject you might not; and why it would not be a very proper method of bandaging to commence as high up as you can go and bandage downward towards the wound. In doing so you overcome the retraction, and you bring the tissues down to their proper relations with the bone. The fact is that in amputating the bone you have taken off the portion exposed by the retraction of the muscles, and by bandaging from above down, you may get a reasonable covering for the end of the bone.

DR. WATKINS.—I think Dr. Love's principal object in introducing the specimen to-night was to bring up the subject of bandaging from above downwards; but I think it will be very readily perceived that it would be a good plan in most cases where from malposition or insufficient drainage there is a tendency to burrowing and pocketing of pus backwards from the extremity of the stump. I think the idea of bandaging from above downwards is a good one, as it would give equable pressure and if there is an exudation of pus it would be discharged from above towards the extremity of the stump. I think that was one of the principal reasons why the doctor brought the subject before the attention of the Society.

DR. HURT.—I think Dr. Love, from his reply to Dr. Holland, did not really mean what he said. I took him at what he said instead of what he meant, and insist that what he said is philosophical.

DR. LOVE.—The point I wanted to make was this: if the proper pressure is brought to bear in applying the bandage, that it might just as well be applied from above downwards, as from below upwards—it makes no difference—we might regulate the supply of blood to the part, control the inflammation, and control in some degree also the absorption of any suppurative materials that might be there. Whether the bandage is applied from above downward, from the proximal extremity towards the end, makes little difference so long as the proper pressure is brought to bear at the proper place.

DR. LUTZ.—I have listened with some degree of interest to Dr. Love's exposition of the manner in which he proceeded in this case, and it strikes me that whenever we have the making of a flap in any surgical amputation—whenever it rests upon us to make a flap, we should make such a flap as will insure favorable union by first intention; and we should insure from our flap, and bandage and the manner in which we coapt the different surfaces the most perfect drainage. Those are the two objects that we should aim at, besides furnishing a serviceable covering for the stump. Now when you have an injury, say a railroad case, where you are not sure the line of demarkation will be—where you don't know how much of the soft parts are going to slough away, and you have no kind of covering for the bony ends, it is well not to use any kind of suture; but where you can make a clean cut and

can coapt the different surfaces in such a manner. I think it is the first principle of surgery to secure coaptation by sutures and to get union by first intention; leaving, of course, at the proper dependant angle of the wound an opening through which you insert the drainage tube, or whatever substance you may utilize to secure escape of any secretion that may form and prevent absorption. Then, even supposing that you have a sac, if your stump method be pursued and proper irrigation is adopted, by passing an antiseptic lotion through the surface or over the surface of your wound through the drainage tube, in almost every case you will succeed in getting good results and prevent the absorption of poisonous materials from the surface of the wound. Now, in so far as the bandage is concerned, the primary object of the bandage is to secure the parts in the position, in which the surgeon originally placed them. It is supposed, of course, that he has determined the best possible position for the flap that the nature of the wound will allow. Now the first object of the bandage is to secure the position of the flaps and the wound in the original position. Now I do not believe that you can make any kind of pressure with the bandage on such a stump as this was without securing it so firmly as to interfere with the circulation to a very dangerous extent. You either cut off the blood supply, which in an open wound will prevent the normal progress of granulations, or if you have a wound in which you have inserted sutures, the pressure which you make so firmly will interfere with the nutrition in the margins of the wound and suppuration will result. If, on the other hand, you make only sufficient pressure to keep the flaps in position, I think the object which the doctor intended to accomplish, that of diminishing the inflammation will be accomplished; and then again, why should the blood supply to a part be diminished in that way?

Now we know that the mere fact that an inflammation is going on in a part is conclusive evidence that there exists in it an increased supply of blood, and this supply is regulated by the demand in the part, and in order that the increased nutritive changes in the part may go on, it is necessary that this increased sary that this increased blood supply should be furnished; and it is also necessary that this increased supply of blood should again be brought back to the heart and back to the central circulation; that the veins and the lymphatics should not be interfered with; and I think that by making firm pressure

we would interfere with both lymphatics and the veins. Then again, whenever we have a stump the covering of which seemed to be extensive enough to furnish a good pad, I believe that constant pressure upon the muscles will increase their power, for a time at least, of retraction; the innate power of muscular fiber to contract is evidenced by the mere coaptation of muscles; they retract, and then if you apply a certain amount of irritation such as a bandage around a certain set of muscles you will find an increased power of retraction; but after a while this retractive power, or this elastic power of the muscle will become exhausted, and the question then is whether this pressure which produced the exhaustion of the muscles will leave enough vitality to enable it to carry on healthy granulations. Now it seems to me that whenever you cannot form a flap sufficiently long to cover your wound satisfactorily, extension, as experience has proved, is the thing to be used. Now I will illustrate that by a case that left my care yesterday or the day before. I presented the specimen here two or three weeks ago, of an unsuccessful resection of the knee joint, in which I was obliged to amputate the thigh at the lower third. I found that after the tumefaction of the muscle had subsided that my flap was far fron being a satisfactory one. I had been deceived in the amount of muscular tissue that I had at my disposal, and had therefore cut off the bone lower down than I should have, and there was a tendency of the muscles to retract over the bone. Of course it never did succeed in coming back over it, but there was that tendency. Following the old established rules laid down in every work on surgery that has been printed for years. I applied extension by means of adhesive strips on either side and in a circular position. I made them sufficiently tight to insure the drawing down of the muscular tissue by a weight applied to the abhesive strips. By this means, besides securing a covering for the stump the circulation is not interfered with. After amptating the limb it should be put in the most favorable position to insure good results. We should allow a free circulation, and not interfere by means of bandages with the processes of inflammation and granulation or cicatrization.

Whenever I have attempted to improve on the mormal course of physiological process I find I always come out second best, and I think he is the best surgeon who allows the normal processes to take their natural course. You can't hurry granulation of the

wound; you can only put the parts in the most favorable condition for granulation and cicatrization.

Dr. Gregory.—Mr. President, I dont attach as much importance to the use of a bandage as some surgeons. Really I believe that I frequently put on a bandage when I think if I were to leave the parts uncovered probably they would do better. I cannot for my life see what part a bandage plays in the dressing of a stump. I put the bandage on sometimes. Some people would think they were not being treated well if I did not. I always know the people whom I am treating. Sometimes I leave the parts open and do not put a bandage on at all. If I put a bandage on, in a day or two when I open the part I leave it off. I have for several years been in the habit when putting on a bandage of pulling the part down and bandaging from above rather than bandaging them from below upwards, and as for our controlling muscular action with a bandage, I cannot believe that it is so. My bandages are loose in a very little while. I don't put them on tight. I think a tight bandage is injurious. I think that a bandage put on moderately tight is so loose in the course of an hour that it would certainly do no good in the way of controlling muscular action. I believe the great point in the treatment of wounds is to keep them quiet; now whether the bandage accomplishes anything in that way, I am not prepared to say. I don't know that it does. I have thought that if a bandage could be put on in some cases and this bandage could be covered over with plaster of paris—covering the whole stump—so as to prevent any injury to the stump; and preventing that unpleasant sensation of injury which every man feels who has sustained an injury. If one hurts his finger he is constantly hurting it, and keeping the wound open by striking the part. We know that the pain in a wounded part is apt to occur in paroxysms—it comes in starts; and after amputating a limb it seems to me that the stump is seized by muscular contraction; and I have no doubt that at the time the limb is seized by the muscular contraction or spasm or when there is any disturbance from within or from without, you diminished the successful progress of repair of injury. I believe if it were possible after an injury to prevent any hurt from within or injury from without, the parts so hurt by the surgeon or by violence—if they could be kept in a perfectly quiescent state, so that there could be no exaggeration of inflammatory action, would

develop just the degree of inflammation corresponding to the injury, and which of course would be necessary to the reparative action. For a long time I have had a point of view relative to to inflammation of this kind. I do not believe that inflammation is an essential disease. I don't believe that inflammation is ever a primary disease. I do not believe that an inflammation ever exists except for the purpose of repair. I don't care how it originates; whether it be what is termed spontaneous inflammation or not, there is some lesion of nutrition which determines the inflammatory process.

After a limb is cut off, if we could keep the parts perfectly quiet we would have just the amount of inflammation which corresponds to the injury; the inflammation would be essentially reparative and any inflammation beyond this is the result of some condition we know not of. Whenever there is extensive inflammation not the result of the primary injury it is the result of some secondary injury. If an injured part is hurt by anything, if it is injured additionally from without there is an additional inflammation. If a part is injured, inflammation arises from it and it is never in excess; but when a hurt part is hurt again and again, a condition of things arises which is exceedingly complicated. We have an inflammation following each injury to such an extent as is required for the reparation of the injury. This way of looking at inflammation has come to my mind to be a most satisfactory one, and until I got this idea into my head I must say that inflammation always seemed to me a rather vague process—to be a process that was perfectly incomprehensible. But since I have come to look at inflammation as always the result of some accidental condition, never a primary condition, it is all very clear. When it is complex it is always easy for me to explain why it is complex from my point of view. As far as the bandaging of the limb is concerned for the purpose of preventing inflammatory process. I think it is well if it will prevent any further injury to the already suffering part; that is the point of view I take of it. If the bandage will do that it is all very well; but as I said, I doubt very much whether it will do it. For a long time I have been in the habit of leaving the sutures out of the wound. I have long since been impressed with the fact that the sutures only bring the skin together, and whenever the parts beyond the skin are wanted to be brought together—the deeper parts—the connective tissue, involving the muscles, some

other means must be used. Of course there are spaces left beneath these sutures. If you put on a bandage there are spaces necessarily left. If you take a flat sponge, properly cut and coapting all the factors of the stump, take this sponge and apply it to the stump in such a way as to close up the spaces in the wound, the deeply wounded textures, I think you might accomplish a great deal. I do not think it is possible by pressure, to close up all the recesses in a wound. In every wound there are little spaces where the blood exudes, where serum exudes, and you have a material that must in a few hours, ferment, and this fermented material must get out through the wound; it must get out in some way or another. If we could close up all these spaces, you have the tissue in contact and they adhere together, and in the course of a few hours you have union by first intention. But I do not believe that we can accomplish this object by pressure. We are as apt to apply the pressure wrong as we are to apply it right, and yet I believe that the method of treating stumps by a sponge bandage, when it can be properly accomplished, will produce good results. But I am satisfied unless this can be done, the stumps had better be left without any bandage, and placed in some position that is as favorable as possible to the escape of the materials which come from the injured parts and over-distended blood vessels; we should favor their escape as soon as possible, and depend upon the process of growth from the bottom of the recesses of the wound for reparation. I remember being in court a few years ago, and meeting an old doctor who was being asked some matters in regard to the treatment of a certain injury—a certain fracture about which there was a law suit—and he said that the reason there was deformity was because the doctor hadn't used a bandage. He evidently believed that a broken bone could be held in place with a bandage. It is difficult for me to suppose that any medical man with gray hairs on his head, would suppose that a bandage would hold broken bones in position. And what is true in regard to broken bones, so far as I can see, is true in relation to bandages put to many other purposes for which they are used. I am satisfied that bandages have done as much harm as they ever did good. I am satisfied that three-fourths of all that we do for wounds, does more harm than good, and the best that the surgeon can do in these cases is to put the wounded parts in a position of rest; put them in a position that favors the circulation

in the part, the return of circulation and the increased circulation; place it in such a relationship as to avoid as far as possible, injury from within or injury from without, which will interfere with the healing process. We should try to prevent all excess of inflammation which results from new injuries and not the first injury; because the system responds to one injury but once, and whenever there is more response than the seeming condition of the parts would cause, it is because changes have occurred which depend upon causes that we think are very trivial. A man who is accustomed to have his fingers cut, finds that he would forget it, if it were not for the fact that he is constantly bringing it in contact with everything he touches. An injury which he imagines is almost well, he finds in a few days to be inflamed, the reason being that he has injured it again and again until the nerves in the part became, as it were, exasperated. So it is in surgery, and we should endeavor, as far as possible, to prevent any secondary injuries to the parts.

DR. HOLLAND.—The Doctor states that he does not think that a bandage does good. He thinks it necessary to have entire rest. Now, I say that the bandage is one of the best methods of procuring rest in an amputated limb; a bandage is the simplest and most general way of procuring immediate rest, which is required in an injury of this character. There is no doubt that if the Doctor wounded his finger, the first thing he would do would be to grasp it with the other hand. Now for what reason does he do this? His purpose is to give the same support as is intended to be given by the bandage. Now, in order to give the parts rest, it is not necessary to bandage them very tightly. I don't believe that is proper. But I do say that when we cut off a limb, and lay the stump on a pillow, and fix it in position, it will not do to leave it so. It is almost impossible to control the twitching which always succeeds severe operations, and if for no other purpose than to give the past temporary rest, there is nothing I can mention that is more beneficial than the bandage—I would not bandage too tightly—but just sufficiently to control the muscular twitching.

DR. HURT.—I didn't want to discuss the subject of inflammation at all, but I took the ground ten or twelve years ago, in a paper read before this society, that inflammation was an exagerated hyperæmia, and I think that my friend, Dr. Grogory, is pretty

nearly in line with me in regard to that question; but I am a little afraid that we have drifted away from the point that Dr. Love wished to illustrate, and which induced him to report the case here; that is, the merits or demerits, whatever they might be called, of the circular operation. So far as bandages are concerned, I must contend that in surgery we can scarcely do without them. I am satisfied that they are of service in procuring rest as well as assisting in maintaining the parts in position. The fact that bandages may be drawn too tight, is no argument against the use of bandages; that is the fault of the surgeon. The question as to the merits or demerits of the circular operation in comparison with the various forms of flap operations, it seems to me, is the question which we should discuss. Of course, other subjects are necessarily drawn into the discussion. In the circular operation there is this advantage, that the least possible amount of surface is left exposed, and then by the use of pressure—as much as is allowable so as not to interfere with the physiological process of repair—you will lessen the extent of the raw surface; and so also the bandage may come in as a means of lessening the extent of raw surface to be repaired.

Dr. Love.—The gentlemen talk about not interfering with the normal processes of nature, not interfering with physiological action. I would suggest that when an accident occurs and a limb is crushed, the attendant condition is not normal but pathological, abnormal and you have to treat it as such. The point that I desired to make in reporting this case of amputation, was as Dr. Hurt suggested, the advantage of the circular operation. I also desired further to demonstrate the advantage of treating the stump open, as Dr. Gregory recommends, not closing it at all, but simply drawing the skin together and using bandages to support the parts, and in the application of the bandages, I would apply them from above downwards, although the initial point is immaterial. As to the risk of shutting off the circulation from the extremity, and interfering with nutrition in the extremity, I think that is very small. You will have a large number of muscles to be drawn together and there is no risk of overcoming them to such an extent as to prevent the nutrition of the parts. To say that a properly applied bandage will interfere with the reparative process in the parts, is to my mind, absurd. Why do we apply a bandage in swollen joints? To support the

part, to limit the inflammation, to prevent the too rapid accumulation of blood in the part and to relieve the pain by pressure. Why do we apply a bandage to an ulcer in the leg? According to the ideas advanced here, we ought to leave it open and not interfere with it; simply leave it open and give it a chance to heal. But by applying the bandage, we give the part support, control the circulation and favor the healing process; that is what we accomplish in applying the bandage; and if we give this support and leave the wound open, we accomplish the very desirable thing suggested by Dr. Gregory. We can see that the pus has a free exit; by the proper use of bandages, and leaving the wound open, we allow the free exit of poisonous substances. Now this is not theory only, it has been proved by practice. During the past year three cases have come under my observation, in which the circular method of amputation was adopted; and in which the bandages were applied from above downwards to the very edge of the wound, then leaving the wound perfectly open, and in each a most excellent result has been accomplished. There was no fever, no pain, no extra amount of inflammation, and in short, in every case there was a most excellent result. The same treatment has been followed in amputation of fingers. The bandages being applied from a point—as far up as possible—downwards to the very margin of the wound. My experience certainly confirms the statements of the great advantage of this over other methods. I don't claim that the idea is original. I am simply carying out the idea of Dr. Link, who, two years ago, reported some forty or fifty cases. He has a large practice in railroad cases, and has made a good many amputations and invariably makes them by the circular method, and bandages from above downwards.

DR. MEISENBACH.—I have listened with considerable attention to the discussion this evening, and I must confess that I have learned a good many things in regard to the use of bandages. If my recollection serves me rightly, we were taught that the first principle of surgery was the correct application of bandages, and the older I get and the more experience I have in the handling of wounds, the more I become convinced that the successful issue of an amputation oftentimes depends upon the character, direction and regulation of the bandages and the character of the pressure. In all cases we desire healing by first intention, and

the first point to be attended to is to get a close adaptation of the surfaces. This can be accomplished by the correct application of a proper splint and a bandage in all flap operations. This is essential. The circular operation is different in a great many respects, there you do no expect healing by the first intention; we expect healing by granulation. In cases where we expect to get healing by first intention, the close adaptation of the two cut surfaces is necessary; and we are apt to have little *cul de sacs* formed; as Dr. Gregory has mentioned, there will be a collection of exudative matter which produces inflammation. Therefore it is necessary that pressure should be correctly made, so as to prevent this. This can only be done by a careful regulation of pressure. To illustrate two cases which recently came under my observation, have more thoroughly convinced me of the value of properly adapted pressure, than I have ever been convinced before. In both of these cases there was periostitis set up, and I gave it a sufficient time to heal, as I thought, both patients being laboring men, I advised them strongly to have the fingers amputated—these cases were of injuries to the fingers—I advised amputation both as a saving of time and because I thought it would lead to a more successful issue. I performed the circular operation, not using the circular flap. I made a large flap with the idea of bringing it around the wounded part of the upper surface. But I was unable to coapt the flaps on account of the infiltration of the parts. I had made the operation and had to go on with it. I was in a quandary. I feared that extensive pressure would cause sloughing. Nevertheless, I put on adhesive strips, and after a time there was a considerable diminution of the parts—they were diminished in size, and shrunken. There had been excessive exudation, and the circulation in the parts was increased, carrying all the exuded matter off. In short, I had a result which I found was equal to if not better than any amputation that I had performed for injury where the soft parts were in a normal condition. It is possible that if I had not applied the adhesive strips, I would have had a successful issue, but it seems to me that it would not have been so. I cannot see how the position that has been taken here, will affect the question to any extent. I think the bandages will be applied as before: they will be applied intelligently, and that they are one of the appliances of surgery that are just as essential as the knife. Of course, it all depends upon the method of applying the bandages, whether

it is done intelligently or not. In regard to the direction in which we bandage; I don't think it matters much which way we bandage, whether it is from above downwards or from below upwards. I do not believe that it is possible to control muscular action by a bandage.

SATURDAY, March 24th, 1883.

DR. WATKINS.—I had a very interesting case that came under my care last Wednesday, and I would like to report the symptoms in the case and ask to be enlightened upon them. Last Wednesday I was called at 12:30 P. M., to see a patient at a tobacco factory on Main Street, where I found A. K. in convulsions. His age was thirty-two, he was a German of spare build but muscular; his business was that of cigar roller. His habits were good. He takes about three glasses of beer every day, stammers in his speech, is irritable in his nature. There was no history of epilepsy or syphilis. He stopped his work and pointing with his finger, uttered an unintelligible exclamation and sank silently to the floor. He was seized with a convulsion which lasted about three minutes, followed by stertorous breathing, and a comatose condition. This was repeated four times before I arrived, and after I arrived and during the application of treatment, he had two more attacks. Between these attacks there was an interval of perhaps fifteen minutes. Between the convulsions there was a tremor of the whole body and the extremities, something like that which we see in the quail or pigeon on crushing in the skull. The most severe handling elicited no signs of consciousness. The pupils were much contracted. Upon the approach of a convulsion he would open his eyes and the balls would turn up. The tongue was bitten badly before my arrival. The facial expression was altered but little, in color it was ashen gray. I had him removed in a wagon, to his home seventeen squares distant. While being removed into the house, he showed some signs of returning consciousness, and in half an hour was able to answer questions. He complained of pain in the head in the frontal region and was disposed to sleep. The latter might have been produced by the remedies applied. Thirty hours afterwards I examined his urine. The patient lay unconscious for three hours. He is progressing fairly now. He is suffering from no symptoms except from a

general malaise. I don't know what caused the convulsion. I would like to hear the opinion of the members, and shall be glad to answer any question that any gentleman may wish to ask in regard to the case.

DR. POLLAK.—Was there any history of mental trouble?

DR. WATKINS.—No, sir.

DR. POLLAK.—Was there any excitement?

DR. WATKINS.—None whatever. He was rolling cigars and suddenly pointing his finger in this way, (indicating) and sank right down. There is no history to the case. I was perplexed and troubled. I treated it on general principles, pretty much as I would a case of active congestion, and the result of the treatment was good.

DR. POLLAK.—What did you give?

DR. WATKINS.—My first treatment was as follows: I applied a large mustard plaster to the back between the shoulders, and I applied ice to his head, with inhalations of chloroform, and poured a solution of bromide of patassium between the teeth. I also rubbed his throat to increase the act of deglutition. After I got him home I gave him a cathartic—sulphate of magnesia—to be followed in a few hours by enemas. I could not discover any cause for the convulsions. The subject of nicotine poisoning came up, but of course, the symptoms would be altogether different.

DR. POLLAK.—Was there any paralysis?

DR. WATKINS.—None whatever.

DR. POLLAK.—What was the condition of the eyes during the convulsions?

DR. WATKINS.—The pupils were contracted, the conjunctiva was very much injected—suffused.

DR. POLLAK.—Were they convergent or straight?

DR. WATKINS.—Neither one, sir.

DR. ATWOOD.—It seems to me, Mr. President, that the history of the case related by the Doctor, is a very ordinary one of epilepsy. I suppose the Doctor recognized it as epileptic seizure, and that the convulsive movements were dependent upon reflex

action, as is always the case. I think the symptoms that he has described are the very ordinary sequellæ of epileptic seizures, and I don't recognize anything extraordinary in the frequency of the convulsions. It is impossible to say what was the cause of the irritation in this case. The Doctor did not find out. It is altogether possible that the man ate something that was undigested, and passing into the intestine, set up an irritation that caused the trouble. Then again, there might have been a central lesion. Then the Doctor has not satisfied himself that there was no syphilitic infection. It requires a great deal of careful questioning and investigation to determine the fact, as I have noted in several instances. I remember an instance in which I was called to a dry goods house on Fourth Street, and found a man wrestling with several men. He had been seized with an epileptic attack and convulsions, such as the Doctor has described, one after another, so that it took five or six men to restrain him sufficiently to prevent him doing himself bodily harm. Finally he recovered sufficiently to be taken home. I could discover no reason at all for the seizures. He said his bowels were in good order, and he was in excellent health and able to discharge his daily duties, and that he lived with the precision of regularity. I asked him, on my next visit, in regard to syphilis, but it was not for some time that I discovered that he was the victim of secondary syphilis, and that he had it in a very bad form. Then I was enabled to form a diagnosis. It was a conviction in my mind that the seizures were dependant upon syphilis. I do not see anything extraordinary in the case at all. It is the common history of epileptic seizures.

DR. MONTGOMERY.—I was very much pleased with the case reported by the Doctor. It is a very interesting one. One of practical importance. I think it possible that the convulsions were brought on by some impropriety in diet or something of that kind. I don't think if it had been caused by syphilitic taint, the case would have gotten well so quickly. The Doctor's treatment, I think, was very judicious: ice to the head, mustard plaster to the spine. I think it was very good indeed. I think in these cases it is a good thing to give a cathartic of calomel (?). It is one of my favorite remedies, and I sometimes use colocynth. In this case the patient being one of regular habits, with no venereal taint, and as the convulsions were probably brought on by

some impropriety of diet, I think the Doctor's treatment was a very good one: In these cases the treatment is very prompt of course, and I don't believe in this placebo (?) treatment; I believe in giving a good purgative, and then I would give bromides. I have great faith in them. If there is congestion with inflammation of the brain, I think the bromide is very excellent. I would dilute it, giving ten or fifteen grains at a dose, every three or four hours. It has a wonderful effect. A great many physicians think it depresses too much and is dangerous. I deny it. I have had a very large experience in the use of this remedy and never saw any bad effects from it. In a multitude of instances, I have seen the very best effects from the bromide of potassium in any case of inflammation or congestion. First, I give a purgative or injection, and then I make applications of ice to the head and mustard plasters to the nape of the neck. I think the Doctor managed his case very well. I am glad to hear those cases reported, because they are of practical importance. I don't believe in the expectant treatment, I believe in doing the very best we can for our patients.

Dr. Watkins.—I wish to state, as the suggestion has been made, that the convulsion may have been due to improper diet, that I made careful inquiry in regard to it. The man is a German six months from the old country, and he had to address me in German. I asked his wife particularly in regard to what breakfast he had taken on that morning, and she said it was their custom to have a breakfast of coffee, bread and potatoes, without meat, and that they had partaken of such a breakfast that morning; that they had not departed from the usual rule, so that I cannot ascribe the trouble to any impropriety of diet. And then, the convulsion took place at ten minutes to twelve, and it is not probable that anything which he had eaten at breakfast early in the morning—he having got to the factory at seven o'clock in the morning—would have caused any such trouble so late in the day. My first impressionas to diagnosis, was that it was an active cerebral congestion and I treated him accordingly. He was not of an apoplectic build; he was a sparely built man, and there was no history of apoplexy in the family, so far as I could learn. He didn't look like an apoplectic subject.

Dr. Atwood.—I wish to call attention to the last remark of the Doctor, in regard to the physical conformation of apoplectic

patients, as if that had some relation to the apoplectic seizures. It doesn't signify anything whether a man has a short neck, large abdomen and tremendous limbs or not. He may be of low stature, lean and slim, and yet the apoplexy is the result of an atheromatous deposit in the blood vessels of the brain. If he is healthy it makes no difference what his physical conformation is.

DR. MONTGOMERY was asked by the President to make some remarks on some subject.

DR. MONTGOMERY.—I would like to bring before the society the subject of the treatment of pneumonia in children. That is one disease in which I feel that I cannot do much. I have a great deal of confidence in my ability to treat children in most other diseases; but in pneumonia I have met with great fatality, much greater than in other diseases. In diphtheria and scarlet fever, as is known to some of the members of this society, I have a good many cases, I have not lost three cases in the last three years; but in the disease of pneumonia among children, I have lost a great many cases. I would like to have the opinion of the members of the society, as to the best method of treating it. I really feel mortified and vexed when I am called to a case of pneumonia in a child under eighteen months of age. My treatment has been to control the irritation and the use of just a little mild mercurial cathartic—I give a little dose of calomel and ipecac; I have used all the remedies recommended in the books, and yet the patient will die. I apply counter-irritants and give them small doses of calomel, bicarbonate of soda and ipecac; I also give quinine, syrup of squills, mucilage, gum arabic; apply mustard plasters to the feet, and give them sustaining treatment. Yet they will die. I have no trouble in the treatment of diphtheria. I have not lost a case of diphtheria in three years. In the treatment of diphtheria, I give the muriated tincture of iron, quinine, chlorate of potash. In making my applications internally, I don't use the common sponge probang. I use a uterine sound, roll a little cotton around it and apply the permanganate of potash. In some mild cases I apply carbolic acid dissolved in glycerine: one drachm of carbolic acid to seven of glycerine. This is a very excellent remedy. I really think my treatment is good from the results that have followed it. I have treated a great many children, and in some cases where there seemed to be very little hope, but I have not lost a case in three years.

Dr. Fischel.—I think Dr. Montgomery has been both fortunate and unfortunate. He has certainly been unfortunate I should take it in the class and character of patients that have consulted him with pneumonia; and he must have been exceedingly fortunate in the class and character of cases that have come to him with diphtheria. In the synopsis of his treatment which the Doctor has just given, I don't see wherein it differs materially or perhaps at all from the generally recognized treatment of diphtheria. Certainly the internal treatment is that which is perhaps most generally made use of, with very mild mercurial purgative to relieve the bowels of the patient, and then following that up with the treatment of the muriated tincture of iron, chlorate of potash. As to the local treatment perhaps the Doctor's use of the permanganate of potash is a little different from what most practitioners use. Certainly his application of carbolic acid agrees with that which in the judgement of most practitioner, is advisables. I think the Doctor is fortunate in having such wonderful success. In regard to his cases of pneumonia, while I would not of course, think of suggesting anything to the Doctor, I believe if the treatment was more expectant, the Doctor might meet with better results. I remember when I visited the Child's ward in the Vienna Hospital, the treatment that Dr. Wiederhof advised for his cases, was to let them alone as much a possible. He would make use of poultices externally, and of course protect the patients well from the influences of the air. Internally he would generally stimulate whenever it was possible. Because the danger in cases of this kind was more from collapse than anything else. The treatment with ipecac and mercurials and tartar emetic and that class of remedies was scarcely ever used. What was occasionally used was an effusion of digitalis, and while they had, of course, a great many deaths, the percentage could not possibly have been as large as that of Dr. Montgomery. From my own experience I have learned to dread diphtheria most. I have had quite a number of cases of diphhtheria lately and in some of them I felt satisfied that the case was hopeless. I cannot give the reason for thinking so, I don't see why I should have made so unfavorable a prognosis. So far as I could see, the cases were no more malignant than many others that had gotten well, and yet the general appearance of the child, and from indications that I couldn't describe, and which I don't think any physician can describe, I felt justified in saying the case was hopeless. In the

case of one child, it lingered ten days. At one time it seemed better, and then again worse, finally septicæmia came on and the child died. My treatment did not differ materially from that of Dr. Montgomery.

DR. WATKINS.—I have practiced medicine eleven years, and of course, my experience is a small one, compared with Dr. Montgomery, but I have treated a good many cases of pneumonia in children during that period, and I have been satisfied that the successful issue of pneumonia in children could be ascribed not to the treatment of the disease so much as the fact that they were let alone. As far as remedial measures are concerned—that is medicinal measures—they are often of little avail. I give a dose of calomel to a child with pneumonia, only when there is special indication for it outside the lung tissue. I depend more upon poultices and keeping an equable temperature, and keeping the patient perfectly quiescent. Stimulants and a nutritious diet and very little medicine seem to do the most good. For the first two or three days I like to control the action of the heart with digitalis, better than with any other heart sedatives that I have used. I don't like aconite. I almost always commence to give quinine in very small doses. I don't use antimony or ipecac unless the air passages indicate the good effects of the emesis. I use brandy, quinine and equable temperature—about 70°—I keep a thermometer in the room. I think warmth and moisture are what are needed, and for this purpose I don't know anything better than a flaxseed poultice. If the mother wishes, I also add camomile, as it pleases the mother and does no harm.

DR. ATWOOD.—It seems to me, Mr. President, it is just as well to take into consideration in the treatment of pneumonia, the fact that it consists of different stages, and that the treatment that is applicable at one time is not applicable at another. During the state of engorgement the treatment should not be that which is instituted in the third stage. The treatment of the third stage must be different from that which is made use of in the first stage. Now I am an old school practitioner like my friend Dr. Montgomery, during the first stage I give quinine and ipecac and perhaps at the same time I administer veratrum viride with a view of controlling the rapid action of the heart, and it is always my custom to prepare during the treatment of the first stage, for the second stage, that is to say, procure as rapidly as possible, an absorption of the

effused material, so as to open up the air cells, and allow the child to breathe freely. I place the patient upon iodide of potassium, with mucilage and tincture of digitalis, and by the time the second stage is well developed if the iodide has had the proper effect, the kidneys have carried off the morbid materials which have been deposited; then as the case progresses we can use stimulants. I don't think it is possible to treat disease with any one remedy; it is necessary to take the disease at the different stages and treat it according to the pathological conditions that are present and the symptoms which are met.

Dr. Montgomery.—I am very much pleased with the gentlemen who have spoken. I believe they pretty much agree with me. In the first stage I give small doses of calomel, ipecac, bicarbonate of soda—those are the best remedies. I believe, of course, as Dr. Atwood does, that we must treat the different stages. In the early stages I give small doses of calomel, ipecac, soda, and afterwards I give the carbonate of ammonia and quinine. There is no doubt I think, but what this is a good treatment, yet I must say that I have been very much disappointed with it. I have lost a good many cases. The great trouble is that a good many patients are not seen by me until the child is almost in a hopeless condition. There is a purulent infiltration when I see the case, and of course, the case is very bad then. I agree with Dr. Atwood in giving iodide of potassium in these cases. I also give veratrum viride. I prefer it to digitalis. Digitalis is too slow in its action. I am a great admirer of veratrum viride. In all cases of young children—I am speaking of children under eighteen months of age—I am afraid to give digitalis. I am very much gratified with the remarks of the gentlemen, and the first case I have of a robust child I will treat it with digitalis.

Dr. Watkins.—I hope the Doctor construes me rightly as to the reason for giving digitalis in the first stage. I consider it in this way: pneumonia is an inflammation of the lung tissue, and we want to stop the irritation as soon as possible. Now my object in giving digitalis or any other heart sedative is to lessen the *vis a tergo*. We can ease the flow of blood. Now I prefer the digitalis for this reason, we control the heart's action without depressing the system as we do by using veratrum viridi. My

only object in giving a heart sedative is to tone down the flow of blood to the inflamed organ and thereby produce a state of quiescence, which is recognized as necessary to subdue the inflammation. To give perfect rest and quiet as near as possible.

DR. CHANCELLOR.—In speaking of diphtheria I will say that I became a victim to this dreadful disease in 1879, when on duty at the Baltimore infirmary, as a Resident Physician. I contracted this from examining the throat of a female immigrant, aged 17, from Ireland, who was brought to the hospital as soon as landing, with a simple and pure case of diphtheria; she died on the third day. I was confined to bed for about three weeks, with a very aggravated attack; my nurse likewise contracted it and we were both treated alike (as I was informed) with liq. ferri sulphatis, ʒiij., carbolic acid m. xx. and glycerine ʒv., as an application to the throat every four hours; and given tinct. of iron and quinine in large doses every two hours. Fat bacon was applied to the throat externally extending from ear to ear, and removed morning and night. Stimulants were given freely, to which I owe in part, my recovery. This has been my mode of practice, with few exceptions, for many years and always with success.

Many cases followed this epidemic, two of which occurred elsewhere than in the pharynx and larynx, one, that of a patient whom Dr. Howard had performed the operation of incising the cervix uteri and the diphtheritic deposit occurred upon the surfaces of the womb. She died on the second day. The other was a case of lithotomy, in the hands of Dr. Tiffany, and the diphtheritic membrane likewise appeared on the margin of the incision. This case recovered. All these cases were reported by Dr. Chew, in the *Maryland Medical Journal for* February, 1879.

DR. ATWOOD.—It is an incontestible fact that one man will treat pneumonia with stimulants and the patients will get well, and another man treats his patients with depressants and they get well. Each treatment will prove successful in some cases. I have been forcibly reminded of the course of treatment that was adopted, when I was practicing in Saline County, Mo., as long ago as 1859, when there was an epidemic of diphtheria: we used to prescribe the recognized treatment in that disease, administer iron and quinine and use chlorinated water but all to no purpose; the cases all died and we began to grow ashamed of ourselves; finally we consulted and came to the conclusion that,

as that plan of treatment had failed, we would try the opposite treatment; so we administered minute doses of mercury every hour and with the best success. We continued to use the chlorinated throat wash, and gave small doses of calomel to the child every two hours, and the cases recovered under that treatment. Now the close alliance or relationship existing between diphtheria and membranous croup, is held by a great many physicians, and the treatment of croup from time immemorial has been by mercurial remedies, and I don't see any reason why diphtheria should not be treated in that way.

Dr. Pollak.—During the last few weeks I have had several cases of diphtheria; in two houses I have had in one five, and the other six patients; these families were living near each other. The disease just went through the whole family. They were not severe cases. The treatment was something like Dr. Atwood stated. I gave calomel in exceedingly small doses—not more than an eighth of a grain; I also gave half a grain of bicarbonate of soda; used a spray of carbolic acid, very mild; and then I used the inhalation of the gas of slacking lime. I take a piece of lime and put it in a cup and pour a little water over it; I then put a funnel over it and allow the child to breathe it, and in a few minutes the membrane would come off and would come away without any trouble. It was reported in an eastern journal, that one gentleman gave as much as an ounce of calomel a day, and insisted that it relieved every case of diphtheria; of course, he was laughed at; but lo and behold, another gentleman of known character and experience, comes and backs up and states that he had used large quantities of calomel and never gave less than a drachm at a dose; this was the only remedy that did any good in those cases which I had last week—six cases that I had in the last two weeks. Every one of these got well, but as I say, they were not severe cases exceptone and that one came around very nicely.

Dr. Montgomery.—I should have mentioned as a part of my treatment, that I give inhalations of lime vapor. I take a lot of unslacked lime and place it in a pail of water, and put a sheet over it and the child so that the child has to inhale the fumes. I think it is an excellent thing in diphtheria.

Dr. Pollak.—The plan adopted by Dr. Montgomery, of throwing a sheet over the bucket of slacking lime is a dangerous

experiment. I know of two or three cases at the school of the blind, where the children have lost their sight from a particle of lime getting into the eyes. It is a dangerous practice.

DR. ATWOOD.—My plan of using the vapor of slacking lime is to place the bucket beneath the bed and put a sheet all around supported on bent hoops or other apparatus and allow the vapor to come up and go all around the child. There is no chance, by this means, of any lime getting into the child's eyes.

DR. POLLAK.—A piece of lime as big as a walnut will answer the purpose.

DR. ATWOOD.—The difficulty in using Dr. Pollak's method is that the child may be so young that it is impossible to make it hold the funnel; whereas in the other case, by using the method that I adopt, the child is compelled to inhale the vapor, and you can put it in as little lime as you please.

DR. POLLAK.—Nothing is more simple in the world. I put an elastic tube on the funnel and put it in the child's mouth and it is compelled to breathe it. There is no difficulty at all about it.

DR. WATKINS.—I heartily agree with the gentleman in regard to his treatment of diphtheria. I have been very unfortunate with my cases of diphtheria. I lost a larger per cent. than I felt like losing. My treatment is similar to the Doctor's except as to the calomel. My idea of calomel is that it tends to devitalize, to diminish the number of red blood corpuscles; and consequently I would hesitate to give it. I think calomel is a devitalizing agent similar to a strong cathartic in some respects, and I don't like to give it in a disease where there is danger of sepsis.

DR. ATWOOD.—I wish to take issue with the Doctor again. Calomel is not a devitalizing agent. If the Doctor examines the blood before the administration of calomel, counting the number of red corpuscles, then counting them afterwards, he will find that they are largely increased, very largely. So that it is really a tonic treatment after all. You cannot salivate a child under two years of age: You can't salivate it before it has its teeth. That is a well known fact. I have practiced medicine for thirty-three years; I have used calomel as freely as any man living, and I have never producee salivation in a child under two years of age.

DR. POLLAK.—I had a case in which I salivated a child under two years of age. It is many years ago; but the child was mercurialized and as a result it lost a large part of the cheek—there was quite a hole in the cheek. I don't see why it can't be done; there is no possible reason, so far as I know, why it cannot be done.

DR. ATWOOD.—The Doctor's individual case only establishes the general rule. It may have been the case if he had not given the mercury.

DR. POLLAK.—I think the hole came from the use of the calomel. The patient recovered and is a married woman.

DR. WATKINS.—I may be a little antiquated, but I don't know why Dr. Atwood classes mercury as a tonic. I have never heard mercury classed as a tonic before. I look upon its beneficial effects as the result of the natural tendency of the system to recovery, the mercury having acted as an antidote to the poison, and liberating the system from its poisenous effects.

DR. ATWOOD.—I would suggest to the Doctor the work of Keys; if he will examine the diagram he will see the representation of the number of red corpuscles increased under the influence of mercury in syphilis.

DR. WISE.—In regard to the point that children cannot be mercurialized under two years of age, I will state that the mercury is partially excreted through the salivary glands, and in young children these glands are rudimentary; the danger of salivation increases in proportion to the development of the glands. I think this is the explanation of why young children cannot be salivated. The experiments of Keys have been well substantiated. I think he stated that it is only in tonic doses that mercury is capable of increasing the red corpuscles of the blood, but it is only in small doses, much smaller than Dr. Pollak has been in the habit of giving.

DR. ATWOOD.—The Doctor is altogether in error in his statement in regard to the minuteness of the doses prescribed by Keys. He commences with one-fifth of a grain and gives that after each meal for three days; on the fourth day he increases it, giving two-fifths after breakfast, one-fifth after dinner and one-fifth after supper, he continues this for three days; on the fourth day he gives two-fifths of a grain after breakfast, two-fifths after

dinner and two-fifths after supper for three days; on the fourth he again gives two-fifths of a grain after each meal, and thus he increases it; and when the remedy acts upon the bowels, causing diarrhœa, he gives one-half of the dose last given as a tonic dose. Now one-fifth of a grain of the proto iodide of mercury is a larger dose than Dr. Pollak gave in his case: he says he gave one-eighth of a grain of calomel.

DR. WILLIAMS.—During the last few weeks I have been attending in connection with Dr. S. H. Frazier, a child who has had scarlet fever and then diphtheria, and as it began to recover from the last trouble, it had abscesses of the drums, and it was for that trouble that I was asked to see the child with Dr. Frazier. I learned in connection with the case, that Dr. Frazier is in the habit of giving in these cases of diphtheria especially, very large doses of quinine, and he says that he gives it for its antiseptic properties. In this case, which is a child about eleven years old, he gave from fifteen to forty grains a day and his theory is that it acts as antiseptic and kills the viris, whatever that may be, and thus eradicate the disease. He claims that the exhibition of excessive doses of quinine in this way saturates the system and acts more favorably in these cases. Personally I have had no experience in the matter. Also I might mention as a matter of interest, a case that recently came under my care, of an old gentleman about sixty years of age, who during the icy weather fell and struck the right side of his head upon the pavement. It hurt him considerable at the time, however, he was not unconscious for any length of time. Some days afterwards he became suddenly affected with aphasia—it was the form of aphasia which is called amnœsic annestic; in connection with this he was excessively stupid; he had no mind apparently. He hardly knew where he was or where he was going. He would forget his name and his wife's name. On examination I found that his ears were filled with wax, which I removed, that had the effect of clearing his head slightly and made him hear better. In connection with the trouble in his head he had divergence of the right eye, showing that the muscles supplied by the third pair were affected in some way, and for that reason he came under my care. At times he had double vision. For the last few days he has disappeared, at least I have not seen him, and it would not surprise me if he was found dead. He was very stupid

and when he went out he had to have some one with to him keep him from running against houses and other objects.

DR. POLLAK.—As we are mentioning singular cases I would like to relate one that I had under my care a few weeks ago, in which I was unable to make out the cause of the trouble. The girl has been in charge of several physicians, she is about seventeen years of age, is in perfect health and hearty looking. She complains occasionally of a little headache; it is very little and comes daily at a regular time; her trouble is that every few minutes she draws an audible sigh. This goes on day and night, every five or ten minutes. I was not able to localize the trouble. Where the disease is I have not been able to make out. It may be there is some trouble in the brain or spinal marrow, that I have not been able to make out.

DR. ATWOOD.—What was your treatment?

DR. POLLAK.—I gave chiefly, bromide of potash. The battery has also been applied. Plasters have been applied but without any result. The pulse is perfectly normal, the secretions are normal, menstruation is normal the appetite is good and she sleeps well.

DR. WATKINS.—How many respirations are there between the sighs?

DR. POLLAK.—I didn't count them. Sometimes she goes five minutes, sometimes six or seven, but it never exceeds ten minutes.

DR. WISE.—In what part of her head did she complain of the headache?

DR. POLLAK—The whole head feels a little too full. She is very intelligent and attends to her duties, but the sigh goes on all the time.

DR. WISE.—Can't she control it?

DR. POLLAK.—She tries her best and can't do it.

DR. ATWOOD.—It seems to me there must be a central lesion producing the trouble; probably at the root of the pneumogastric nerve; such sighing would be the result of some lesion of the nerves that supply the muscles of respiration. Of course, such a central lesion would only be apparent upon a post-mortem.

ARTICLE LII.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

[Reported for the JOURNAL.]

THURSDAY EVENING, March 8th, 1883.

The President, DR. JAS. TYSON, in the chair.

A Series of Specimens of Cancer, Involving the Stomach, Liver, Pancreas, Rectum and Lung. Exhibited by Dr. Guy Hinsdale. They were obtained from recent cases at the Episcopal Hospital.

CASE I.—Carl W., æt. 44, was admitted Oct. 23rd, 1882. He had never been ill before and his symptoms had been developed during the two weeks previous to admission. His bowels were regular, he had had no vomiting but had pain at the lower margin of the left ribs with cough and frictional sounds. Cachexia was marked. The abdomen was soft. A tumor was felt in the left hypochondriac region. The spleen was distinctly felt and enlarged.

The tumor increased in size, became more tender and pain was at times very severe. The patient's appetite was gone and emaciation was extreme. Twenty-six days after admission death occurred.

At the autopsy, fluid was found in the pleural, pericardial and abdominal cavities. There were old pleuritic adhesions. The roots of the lungs, the base of the left lung adjacent to the diaphragm, and the pleura beneath the ninth and tenth ribs were found to be the seat of cancerous deposit. The bronchial and thyroid glands were very much hypertrophied, but not cancerous.

The cardiac extremity of the stomach was the seat of an extensive cancer, but the cardiac orifice was not involved and the mucous membrane not destroyed. The pyloric end was intact. The pancreas was the seat of cancerous growth. The liver was of a dark mottled color and showed numerous metastatic growths in an early stage of development; its weight was 5 lbs. 9 oz. The spleen was greatly enlarged and the seat of small secondary deposits. Kidneys normal.

Microscopic sections of the thyroid gland showed simple

hypertrophy? Sections of the metastatic growth in the liver showed scirrhus cancer.

CASE II.—James S., æt. 40, admitted Sept., 28th, 1882. During two months previous to admission, he had lost forty pounds of flesh, his skin had become very sallow, and vomiting, which at first was occasional, finally occurred after every meal. A tumor was distinctly felt on the left side, above the umbilicus; it moved with respiration and was painful on pressure. Albumen was present in the urine. The patient's mother had died of cancer of the stomach.

After admission, the tumor increased in size, the patient grew weaker, vomiting frequently and passing clay-colored stools. Death occurred on the thirty-eighth day after admission.

At the autopsy, the heart, lungs, kidneys and spleen were found in a normal condition; the stomach was very much dilated and contained undigested food. A cancer was found at the pyloric extremity. The walls of the pylorus were very much thickened and its orifice admitted the thumb with difficulty.

The liver was detached and found to be the seat of four large bases of secondary cancer. Its weight was 3 lbs. 14 oz. The gall duct was unobstructed.

A microscopic section of the growth in the stomach showed scirrhus cancer.

CASE III.—Cancer of the stomach; Gastro-colic fistula.—C. W., æt. 66, was admitted June 13th, 1882. His health had been good until four months previously, when he vomited some dark bloody matter. Pain was occasional and occurred after eating. Vomiting had occurred once. Jaundice began three weeks before admission; the skin was dry and the body was much emaciated. Stools regular but clay-colored. The liver was slightly enlarged. Distinct nodular masses, slightly painful on pressure, could be felt in the epigastric and umbilical regions. The inguinal glands were slightly enlarged; the axillary glands remained normal. There was no cough; a faint low systolic murmur was heard at the aortic cartilages. The urine was dark yellow, sp. gr. 1010 and contained no albumen. Vomiting, emaciation and jaundice progressed, the tumors increased in size and death occurred two months after admission.

At the autopsy a cancer was found at the pylorus. A fistulous opening, large enough to admit the forefinger, was foumd to

exist between the stomach and transverse colon which were infiltrated by the cancerous deposit, and adherent to each other. The caliber of the colon was small. The mucous membrane of the stomach, at the seat of the disease, was ulcerated and ragged. There was no dilatation or hypertrophy of the walls of the organ. The gall-bladder was distended and both the pancreatic and common bile duct were obliterated. Heart, kidneys and other organs showed nothing very unusual. The mesenteric glands were slightly enlarged. The spleen was small and its hilus the seat of a hard calcareous plate; the organ was displaced, lying close against the diaphragm, some distance from the chest-wall, accounting for the perfect resonance which had been noted in the spleenic region.

CASE IV.—Rectal Cancer; Colotomy.—John M., æt. 71, was admitted to the hospital Oct. 26th, 1882. He had always been healthy until three months previously, when the movements of his bowels became irregular.

The patient suffered from diarrhœa. His urine was albuminous and contained hyaline casts. He had hydrocele. He denied specific history. Exploration of the rectum revealed a malignant stricture an inch and a half from the anus.

On account of the patient's age, operative measures were not contemplated until the passages became very difficult and hiccough and stercoraceous vomiting demanded relief. This was temporarily afforded by the operation of left lateral colotomy, which was performed by Dr. John H. Packard. Death ensued twenty-four hours later.

At the autopsy the wound was found in good condition; the descending colon was opened about three inches from the point of its bending downwards. An enormous cancer was found involving the rectum and posterior wall of the bladder and nearly filling the true pelvis. All the other viscera were in good condition. Microscopic sections showed the cancer to be scirrhus.

CASE V.—Cancer of the Rectum; Secondary Cancer of the Liver.—Christian H., was admitted July 6th, 1882. He stated that for twenty-seven years he had been perfectly well but that two years previously he had noticed loss of flesh, and about the same time discovered a growth at the anus which was small, but which gave him a great deal of trouble at stool. Two weeks later he noticed that his feet and legs had become swollen, but it

was not till his admission to the hospital that he became aware that there was anything the matter with his abdomen.

The patient's father probably died of cancer of the stomach.

The anal growth was excised and proved to be an adenoid type of malignant disease. Vomiting, dyspnœa and sallowness of the skin, increased until his death, five weeks after admission. The autopsy showed that the liver and rectum were the only structures seriously diseased. The liver was enormously enlarged and filled the whole upper portion of the abdominal cavity. It was slightly adherent to the diaphragm and adjacent viscera, and was studded with cancer nodules, varrying in size from that of a filbert to that of an egg, often coalescing and pretty equally distributed over the surface. The whitish color of these nodules was in strong contrast with the dark color of the liver, giving it a variegated appearance. Its weight was 10 lbs. 4½ oz. The walls of the rectum, six inches from the anus, were infiltrated with the new growth. This was the primary seat of disease. The secondary growth was very rapid, almost entirely painless in itself, and disturbing the patient only by mechanical irritation of the stomach and the production of œdema and ascites by interference with the circulation. Jaundice did not occur.

Microscopic sections of the anal growth revealed an adenoid growth resembling an aggregation of Lieberkuhn's crypts. The growth higher up in the rectum was more advanced and illustrated the encephaloid form of the disease. A section from the metastatic deposit in the liver showed a stroma of fibrous tissue with alveoli lined by epithelial cells, the peripheral cells retaining their *columnar* shape. It was an example of the reproduction in the liver, of the same follicles found in the primary disease of the rectum.

An Unique Specimen of Ossification at the Aortic Orifice. Exhibited by Dr. J. F, Eskridge.

It was sent him from a distance and consisted of about one inch of the cardiac end of the thoracic aorta, the aortic semi-lunar valves, and the immediate portion of the heart. The specimen was removed from a man, who, aged about seventy, had suffered a number of years from severe heart disease. The walls of the large arteries were thickened, rigid, and contained numerous deposits of inorganic matter. The left ventricle was enormously enlarged. He was unable to obtain any information with regard

to the condition of the cardiac valves, other than those of the aortic orifice.

Description of the specimen.—The aorta, where it surrounds the valves, for about half an inch in extent, is a hard unyielding substance of fibrous tissue, and calcified and ossified matter. The valves in several places are about one-fourth of an inch thick, and seemed to have been almost entirely transformed into bone-like material. They are rigid and immovable, and have almost completely cut off all communication between the heart and aorta. One of the leaflets, about three-fourth of an inch in all directions with its vegetations, stretches across the aorta, lies against and is apparently adherent to the other segments of the valves, the latter being curled upon themselves. The central portion of the aorta is entirely occluded, and only two small openings through which the blood could have escaped from the left ventricle are seen between the valvular leaflets near their peripheral attachments. The larger of these holes admits a flattened probe three m. m. wide by one thick; the smaller is about two-thirds as large. Three other small orifices have existed, but these were obliterated before death, by a thin, fibrous, transparent membrane which is still seen. The valves on the cardiac side are tolerably smooth, but on the aortic side they are very rough, one of the leaflets supporting a vegetation ten m. m. long. One of the segments of the valves is adherent to the inner coat of the aorta for about half an inch in extent, the free end of the valve being folded upon itself, and pointing toward the nearly closed aortic orifice. After macerating the specimen in water for forty-eight hours, the diseased valves still remain inflexible. Drs. Formad, Dunn, Griffith and Edwards reported having similar or nearly similar cases. Drs. Tyson and Nancrede called in question the correctness of calling the disease *ossification* of the valves, as it was in reality a *calcification*. Dr. Shakespeare concurred in this view, and thought that ossification rarely, if ever, occurred in this situation.

Dr. Eskridge said that Hayedn ("Diseases of the Heart and Aorta," Vol. II., p. 839) referred to bony deposits in the aorta and its valves as follows:

Sir. Dominic Corrigan exhibited before the Pathological Society of Dublin (see proceedings, vol. ii., new series, Feb., 1864) the heart of a young woman, in which the root of the aorta had undergone complete osteoid transformation; it was likewise

greatly dilated and the aortic valves had been rendered thereby inadequate. During the patient's last illness, a systolic murmur of metalic quality, appropriately designated a "trumpet-bruit," was audible at the base, and in the ascending aorta and carotid arteries: there was likewise a soft diastolic murmur. He regards a "trumpet-bruit" as absolutely diagnostic of bony deposits in the aorta, either in the form of a "rim of bone," or a "projection or tongue of bone." In the same paragraph Corrigan refers to Dr. Banks' specimen of a "tongue of bone" projecting into the aortic surface.

Reports of the Committee on Morbid Growths.—"A microscopic examination of a section made from the growth removed from the uterus, and presented by Dr. Brush, Dec. 28th, 1882, shows it to be adenomatous in structure, consisting of small cavities or spaces lined with cells, which cavities are separated from one another by fibrillar connective tissue."

"A section of the lymphatic glands presented by Dr. Parrish, Dec. 28th, 1882, shows that its normal structure is metamorphosed into that of a carcinomatous nature, consisting of an alveolar fibrous stroma, having the spaces filled with cells of an epitheliomatous type."

Report on Dr. Eskridge's specimen of brain, lung, liver, spleen, kidney and bladder troubles, presented Nov. 9th, 1882.—"A section made from one of the nodules of the liver, presented by Dr. Eskridge, examined microscopically, shows it to be a new formation consisting of epithelial cells placed in alveolar spaces, the tissue forming the alveolar walls being fibrillar connective tissue. The cells in the spaces at the periphery of the groups, and lying next to the alveolar walls, have a columnar shape, and are quite regularly arranged, while those of center are flat or squamous epithelial cells. The neoplasms are cylindrical-celled epithelioma. The post-mortem changes undergone by the brain were such as to prevent any satisfactory histological examination being made.

A Tumor Composed of Miliary Tubercles of the Subcutaneous Adipose tissue connected with one of the Anterior cutaneous Branches of the Lumbar Nerves. Exhibited by Dr. Nancrede.

The patient from whom this truly unique tumor was removed, was a young girl of eighteen years of age, who for four years past had had occasional cough, with at times some bloody

expectoration, but was able to attend to her occupation of housework. Her family history was not characteristic in any way. About one year since she thought that she "strained herself," since when she has been subject to attacks of abdominal pain, which extended to various portions of her body. She was admitted to the Female Medical Wards of the Episcopal Hospital, last fall, when dullness on percussion and harsh respiration at the apex of one of the lungs was detected. During Dec. 1882 the pains increased, and the right thigh became flexed upon the abdomen. A small exquisitively, sensative nodulated tumor was now detected just to the outer side of the right rectus abdominis. Dr. Morris J. Lewis, by whose kindness I am enabled to present this specimen, then asked me to see the case with him. Under ether I found a nodulated mass, beneath but attached to the skin, and freely movable upon the deeper parts. I then thought that the growth was one of the ordinary so-called neuromata, *i. e.*, usually fibrous growths in connection with some nerve and that the pains were reflex, as was also the flexion of the thigh.

Feb. 20th, 1883. I accordingly removed the growth, which, to my surprise, was markedly infiltrated, and only at one spot in any sense encapsulated, where it evidently had developed around a small cutaneous nerve and artery. The wound did badly and has left an indolent ulcer, *but all the reflex pains and flexion of the thigh have disappeared,* while the lung is breaking down, yet the patient is gaining flesh and looks and expresses herself as much better and thoroughly satisfied with the results of the operation. I have termed this growth unique because I believe that none such have been reported, *i. e.*, subcutaneous masses of tubercle large enough to require the surgeon's knife, and liable to be mistaken for other neoplasms. The present growth was about an inch in its various diameters, as far as could be estimated. Microscopically, sections show fibrous and adenoid tissue with giant cells according to the kind report of my friend, Prof. Lewis, whose observations have been confirmed by Dr. Formad and other pathologists as well as myself.

Dr. G. G. Davis said that he had seen a somewhat related case in the clinic of Prof. König, of Cottingen. A young man had a subcutaneous tumor just above and to the outer side of the patella. It was about one inch and a quarter in diameter and perfectly circumscribed. It and a portion of the joint capsule including the part to which it was attached, were excised anti-

septically. On the synovial membrane were found a number of what appeared to be miliary tubercles. There were no other evidences of tubercular disease, and he recovered with a good, movable joint. Prof. König regarded the case as one of the localized tuberculosis. He examined the excised portion microscopically. The tumor was hard but had undergone cheesy degeneration.

Dr. Nancrede thought that this interesting case related by Dr. Davis, still left his own unique, as Prof. König's case evidently had its origin from the synovial membrane, which was so closely related to the other serous membranes, which as is well known, are so very prone to miliary tuberculosis.

"A section of the growth presented by Dr. Nancrede for Dr. Seltzer, on microscopical examination, shows it to consist of an external covering formed of the histological elements and arrangement as found in the skin; the papillæ were in places much atrophied and flattened, also in some parts elongated. There were no hair follicles, sweat or sebaceous glands in the section. Below the papillæ was seen fibrous tissue, at some points in an active state of proliferation, and numerous blood vessels. The growth is a fibrous polypus."

THURSDAY EVENING, March 22d, 1883.

The President, DR. TYSON, in the Chair.

A Case of Chondroma of the Skull. Exhibited by Dr. J. Crozer Griffith.

The patient, aged 29, had been admitted to the Presbyterian Hospital, Phila., June 1st. He was and had been suffering from persistent and very severe frontal headache, and held his head thrown back upon his shoulders to the fartherest extent. Examination revealed a tumor the size of a walnut upon the anterior vault of the skull. This had been recognized by the patient for from one and a half to three and a half months. Just how long was uncertain, as his headaches were very much confused. He had suffered from headaches for twelve years. Ophthalmoscopic examination revealed doubled choked discs.

While in the house the tumor grew with great rapidity, and a new growth sprang up beside it. The larger one became soft and tender in spots. The patient became delirous but coma

and paralysis developed only three days before death, nineteen days after admission. The post-mortem examination revealed a large tumor on the anterior portion of the vault, consisting of a soft red mass, but full of bone spicules. And to the right, and connected with it, a smaller, dense hard white growth. Apparently distinct capsules enclosed and separated the two. The periosteum covered both tumors. The entire growth was irregularly oval, four and a half inches long by four inches to five inches broad, and with one and a half inches for its greatest thickness. Removal of the calvareum showed that the greater part of the tumor was internal. Here it was divided into three lobules, of which two resembled the larger tumor in structure, while the third was more like the smaller external growth. The duramater covered the internal projection. At points it was attached to the brain, and bone spicules penetrated into the brain substance. The length of the entire internal growth was four and a half inches, width four inches, and the greatest depression upon the brain two inches.

The tables of the skull within the tumor were destroyed, and the bone around the edge eroded for some distance. The brain structure did not appear to be altered. Microscopical examination showed it to be a reticular chondroma, with a large amount of imperfectly fibrillated and rather translucent connective tissue forming small meshes in which were cells; some embryonic, but very many cartilage cells. The bone spicules were evidently newly formed, and the older tumor had evidently undergone an ossifying metamorphosis, and then evidently had become vascularized, forming a soft mass, in which the spicules were embeded. Clinically, the case was of interest, from the existence of so great a depression of the brain, with so few signs of disturbance of its functions.

Dr. Wetherell asked what was the condition of the lymphatic system; were the glands enlarged? Dr. Griffith replied that only the post-cervical were affected.

Dr. Formad had examined the sections about a year ago; it is true, as he says, the predominant cells are those which resemble those of fibro-cartilage. There were, however, many young cells; cells like giant cells, but the majority of the sections had more the appearance of fibro-cartilage. The conclusion to which Drs. Tyson and Formad came at the time was that it was one of the varieties of chondroma. As the specimen appears

now, it is too soft for chondroma, but seems rather to be chondro-sarcoma. To this would point the rapid growth and age of the patient. It is certainly not gummatous.

A Case of Metastatic Pneumonia following Pistol Shot Wound of Temporal Bone. Presented by Dr. H. M. Fisher.

The patient, H. G., æt 26, from whom the specimens I present to night were taken, was admitted to Dr. Levis' Wards, at the Pennsylvania Hospital, October 31st, 1882, suffering from a pistol shot wound of the right ear. The following clinical notes of the case were kindly furnished to me by Dr. J. H. Wills, resident surgeon to the hospital:

Examination of the wound with the Nélaton probe showed that the ball had passed through the posterior wall of the external auditory canal, and was firmly imbedded in bone, about one inch from its point of entrance.

The seat of the ball was distinctly located by the marking of the lead on the porcelain of the Nélaton probe.

A prolonged effort to extract the ball was deemed unadvisable on account of its close proximity to the lateral sinus. On account of the inflammatory œdema of the tissues around the wound, poultices were applied. Ptosis of the right lid, and slight depression of the right corner of the mouth were noticed.

The patient remained in the hospital four weeks, during which time his general health appeared fairly good.

He was permitted to go out on a pass, returned the following day with well marked pleuro-pneumonia, and died ten days later.

The autopsy showed that the ball had penetrated the tympanic cavity, and passed into the jugular fossa, where it was found embedded. There was marked periostitis in the neighborhood of the wound, but no inflammation of the walls of the lateral sinus, nor of the internal jugular vein, was noticed.

I am inclined to believe that the infarcts found in the lungs and pleura owed their origin to numerous small thrombi that had been formed in this diploe of the petrous portion of the temporal bone; the venules of the diploe having been plugged as the result of the periosteal inflammation. These thrombi becoming loosened in consequence of increased blood pressure, were washed out into some one of the adjacent sinuses, and so into the pulmonary various circulations.

The case is, I think, an interesting one, as showing the dangers attendant upon such injuries to the temporal bone, apart from any incidental injury to the brain or its membranes.

Sections of the heart, liver, spleen and kidneys showed marked amyloid infiltration of these organs. Whether such marked changes could be induced in all their organs in the short period that elapsed from the receipt of the injury to the date of the patient's death, is a question I would leave to other members of the society to decide. At any rate, so far as I could ascertain, no previous history of suppuration was elicited from this patient during the time of his sojourn in the hospital.

Appended are the notes of the microscopical examination of the different organs:

Lungs.—Vessels everywhere greatly dilated, and present numerous infarctions: the alveolar capillaries are also greatly distended, and their endothelium is swollen. Inter-alveolar spaces packed with lymphoid cells and embryonic connective tissue cells. The alveoli contain accumulations of epitheliosed highly pigmented cells. These cells are generally found associated with exudative corpuscles in a delicate reticulum. These catarrhal intra-alveolar accumulations show in places a tendency to become organized.

The *pleura* is greatly thickened, its vessels dilated and infarcted.

Heart. Muscular fibres show commencing fatty degeneration, and there is marked amyloid infiltration of the walls of its smaller nutrient vessels.

Liver.—Cell-neuclei alone take carmine staining. Islands of liver-cells found in a translucent, nearly homogeneous basement tissue. Evident amyloid infiltration of the walls of the finer hepatic arteries and biliary ducts.

Kidney.—The malphigian corpuscles show different capillary loops and little shrinkage from the action of the alcohol. The lumma of the arterioles are patulous.

Homogeneous translucent spaces are seen between the smooth muscular fibres of these vessels.

Spleen.—The lymphoid corpuscles of the pulp appeared to me to present an unduly homogeneous translucent appearance. The smaller vessels show indistinct amyloid infiltration of their walls. The malphigian bodies also show a notable infiltration, having, in some cases, been converted into amorpheous masses,

which are semi-transparent, and show interspersed among them a few connective tissue nuclei.

A Case of Erysipelas Neonatorum. Presented by Dr. M. H. Fisher.

Was called, on March 3d to see a colored infant one week old.

The child was said to have presented no sign of indisposition until the day previous to my visit, when it suddenly became much agitated, refused to nurse, and was found to have difficulty in micturition. The tissue of the scrotum and penis were found to be swollen, and in a few hours a faint erysipelatous blush was found pervading their surface.

When first seen the child was apparently moribund. I could detect no radial pulse, its lips were blue, its extremities cold, and it was in a semi-comitose condition. In the hasty examination I made in the small, badly lighted attic, in which I found the child, I observed, but did not attach due importance to the erysipelatous blush I found extending from the scrotum to the lower part of the abdomen. From the history furnished me, and from the œdematous infiltration of the legs, thighs and eyelids, as well as of the scrotum and penis, I was inclined to look upon the case as primary acute nephritis, with secondary erysipelatous involvment of the œdematous tissues.

With this view of the case I ordered that the child should at once be placed in a hot bath, and after the bath applied flannels, wrung out in hot infusion of digatalis, to the patient's loins, and administered a small hypodermic of pilocarpine. Marked temporary improvement followed this treatment; the child emerged for a short time from its semi-comitose condition, cried lustily, and urinated and sweated freely, and marked reductions of the œdema was also noticed.

The improvement was, however, of short duration; the child soon relapsed into its former apathetic condition; death occured at 11 p. m. The autopsy made by Dr. McIlvaine, resident surgeon, eighteen hours after death, revealed rigor mortis pretty well established.

Œdema of the tissues of the lower extremities, scrotum and penis was noticed—there was a livid discoloration of the skin of the anterior inner aspects of both thighs, and slight sloughing of the skin of the lower part of the scrotum. The bladder contained about half an ounce of light yellow, opaque urine. The

urine obtained by tapping the bladder at the post-mortem showed, on examination, an apparent volume of albumen equal to about one-eighth of the column of urine in the test tube. Microscopically, blood and pus corpuscles were found in abundance, and a few highly granular tube casts.

The kidneys were somewhat congested and lobulated, but their capsule was not adherent, and they did not, at least to the naked eye, present any other evidence of disease. The liver weighed six ounces, and was highly congested. The spleen weighed one and one-half ounces, and was likewise congested and its surface mottled.

The lungs were pretty evenly congested, but were everywhere crepitant, and floated on water.

The heart weighed twe ounces, and presented, on the whole, a healthy appearance, but its posterior mitral cusp appeared somewhat thickened.

The post-mortem appearances leave, I think, but little doubt that the disease was peripheral in its origin, or, in other words, that the erysipelas was the starting point of it. Probably some comparatively trifling cause, such as a slight abrasion of the skin of the scrotum sufficed, under the very unfavorable sanitary conditions in which the patient was placed, to light up the train of the disease, with all its complications.

The progress of the disease seems, in this particular case, to have been unusually rapid. If the mother's statements can be trusted, only 36 hours elapsed from the first onset till its fatal termination.

Editorial.

Article LIII.

SPECIALISM IN MEDICINE.

Dr. A. D. Price, of Harrodsburg, President of the Kentucky State Medical Society, in his Address delivered in Louisville, on April 4th, says:

"Specialism in Medicine has fought a good fight, and stands to-day in the 'front rank of usefulness.' It has added much to our knowledge, and its continued investigations will ever shed blessings on mankind.

It is a matter of regret that in this great commonwealth, where there are so many good and successful general practioners, there are so few specialists. Were the energies and abilities of those who could afford it, devoted to some special department of medicine, it would be to the advancement of science, and to the best interests of the sick. And were medical men imbued, regardless of personal considerations, with the desire to benefit humanity to the fullest extent, there is not a town or village where division of labor might not be made with profit to the profession and advantage to the afflicted."

More important truths have not been presented to the profession, than are contained in these two short paragraphs, and coming, as it does, from the President of a State Medical Society, its influence for good will be greatly increased.

There is, perhaps, one qualification which the specialist should possess, that has not been sufficiently urged by those who either speak or write on this subject; that is, he should have been a successful general practitioner for at least five years, or still better, ten years. It is utterly impossible for a fresh graduate to successfully practice any one of the specialties that is now becoming popular. There are many diseases that have symptoms quite similar to other diseases, and to be able to utilize the symptoms in pointing out a special disease, one must have a knowledge of medicine in general, *through experience*, as well as from the professor and from the text books.

The evil that threatens specialism is, that young men will read their anatomy, will read their physiology, and look over

theory, and practice of medicine and surgery, with an eye single to the specialty that they have in view. So soon as this is done, so soon is begun the degeneration of specialism. If specialism is to continue in the "front rank of usefullness" specialists must come from the ranks of the successful practioner.

KENTUCKY STATE MEDICAL SOCIETY.

This Association met in Louisville, April 4, 5 and 6 last. The meeting was held in the Masonic Temple. Its principal officers were as follows: Dr. A. D. Price, President; Drs. J. R. Bailey and T. D. Williams, Vice-Presidents; Dr. L. S. McMurtry, Secretary. The meeting was a large, harmonious and interesting one. A large number (24) of instructive papers were read.

Dr. Ap Morgan Vance, of Louisville, read a paper on "An Orthopedic Case," that attracted much interest and gave rise to much discussion pro and con. The paper will be published in the official organ of the society. After its publication it will appear in the JOURNAL, as it is a case that will greatly interest the medical public on account of the result, (which was excellent) and the refusal to pay surgeon's fee, it being larger than usual, but not larger than it should be, as the patient is wealthy. As a general thing physicians and surgeons charge for *time consumed* and not *for results*, as they should do.

Dr. W. O. Roberts, read a paper on the "Clinical Observations on Head Injuries," relating quite a number of very curious cases. Dr. McCormack, of Bowling Green, President Elect, related the history of a most extraordinary case of a boy being injured on the head, causing a depression of the skull. Between the time of receiving the injury and the time that the depressed bone was raised, the patient was married, purchased property, etc., all of which was instantly for gotten; his memory of the past extended from the time of receiving the blow on the head, back farther into his boyhood life. He did not know that he had a wife or possessed real estate, etc. The full history of this case will also be published in the JOURNAL.

Dr. F. C. Wilson, of Louisville, read a valuable paper "On Tracheotomy." He had a little fellow about five years old, on whom he had performed tracheotomy for diphtheritic closure of the glottis. Dr. David Yandell commented very favorably on

the paper, and concluded by saying that the little patient presented before the society, was the only successful tracheotomy for diphtheria in Louisville, all other attempts to save by surgical interference being unsuccessful, every patient but this one, dying.

Dr. Thos. F. Rumbold read a paper, by invitation, on the "Treatment of Chronic Nasal Catarrh."

TO THE SUBSCRIBERS TO THE "INDEX MEDICUS."

"In announcing the continuance of the INDEX MEDICUS for 1883, the publisher regrets to state that, although its subscriptions, particularly abroad, show a slight increase during 1882, the financial result still exhibits a deficit. This, however, is covered by the guarantee fund.

"It will be readily understood that the future of the INDEX MEDICUS is by no means assured. It cannot, in fairness to the generous contributers to the guarantee fund, be expected that they continue to cover the deficiencies *ad infinitum*. On the other hand, the capital sunk by the publisher during the first two years makes it impossible for him to incur any further serious loss. He is sanguine enough, however, to believe that it is within the power of the present subscribers to save the INDEX MEDICUS from a failure that would deprive the profession of an acknowledged aid. He therefore once more makes an earnest request for coöperation in his efforts to increase the circulation of the journal. He begs to submit for this purpose a printed list of subscribers, which, arranged geographically, clearly shows where some effective work may be done. If the principle cities were represented in the ratio of New York, Boston, or Philadelphia, the INDEX MEDICUS would be a success. If, indeed, each of the medical societies and libraries could be induced to contribute but one subscription, it would be safely established. It is in this direction particularly that the publisher wishes to enlist the personal influence of those who cannot otherwise aid him beyond their individual subscription."

F. LEYPOLDT.

31 & 32 Park Row, New York.

We are astonished to hear that the *Index Medicus* is in such a strait, as we thought that a journal so indispensable and valuable, as we have found the *Index Medicus* to be, would be patronized by the profession at large, and especially by those who are students. It is invaluable to the physician who wished to read upon a particular branch of medicine, as he can there find

all the authors who treat of that particular branch with which he desired to become more familiar; and also the physician can keep himself posted as to what works are being publised or have been published.

We sincerely hope that the profession, and especially our readers will not only contribute their subscription, but will also try to get their brother M. D,s. to subscribe for the *Index Medicus*. Subscription price. U. S. postpaid, $6.00 net.

The Collegiate Department of the Chicago Dental Infirmary is the first dental college to require its graduates in dentistry to be graduates of some medical College in good standing, or that they must be pursuing studies to that end in some reputable medical college.

This is a very good plan and will tend to raise the dental profession to a higher standard than they now attain to.

As water gas is coming into such general use, it may be of interest to our readers to know the composition, both of water and coal gas. We give *what is said to be* their respective compositions. We leave the readers of the JOURNAL to form their own conclusion as to whether it is right or not, *if it is true* then, water gas is a deadly poison; but we do not vouch for its truth.

Analysis of coal gas, New Haven, Feb. 11th, 1869, and water gas, Municipal Gas Light Company, New York, March 4th, 1878, made by Prof. Henry Wurtz, Ph. D.

Coal Gas.		Water Gas.	
Hydrogen	42.47	Hydrogen	38.20
Carbonic Oxide	2.08	Carbonic Oxide	27.14
Marsh gas	46.16	Marsh gas	15.82
Illuminants	6.67	Illuminants	15.29
Air	2.62	Nitrogen and Oxygen	3.45
		Carbonic Acid	.10
	100.00		100.00

We learn by the Cornell University Register, that that Institution has introduced a preliminary medical course in their curricula and advise all students who intend to become physicians, to embrace these studies in their course; thus giving them a start in three of the main branches of medicine, viz., anatomy, chemistry and physiology.

We believe this to be a good plan, and would like to see all the western classical colleges take the same course. It is an acknowledged fact, that two-thirds of the medical students of the present day, know nothing whavever about these branches when they enter college, and it takes them the greater part of the first year to get the first principles of these branches, so that they can comprehend and understand what the professors are lecturing about.

Book Reviews.

Article LIV.

Manual of Gynæcology. By D. Berry Hart, M. D., F. R. C. P. E., Lecturer on Midwifery and Diseases of Women, School of Medicine, Edinburgh, Etc.; and By A. H. Barbour, M. A., B. Sc., M. B., Assistant to the Professor of Midwifery, University of Edinburgh; Late Assistant of the Royal Medical Society. Vol. II. (New York: Wm. Wood & Co, 56 and 58 Lafayette Place, 1883.) 8vo. pp. 366.

This is the February issue of Wood's Library of Standard Medical Authors. Like the preceding volume, it is well illustrated, having one lithograph plate and two hundred and ten wood cuts. This volume completes *part two*, which was commenced in the first volume. It also has an appendix of 22 pages, which takes up the subject of syphilis as connected with the diseases of women, and contains the latest foreign views on the complaint.

This subject is considered under three heads, viz.:

1st. Phenomena of an attack of syphilis and its treatment.

2d. Syphilis and marriage.

3d. Syphilis and pregnancy.

The treatment of this complaint is given in full.

The effects of so called hereditary syphilis upon children are carefully described. This description embraces, principally, the eye and the teeth. "In the eye there occurs, at the second dentition, and at puberty in girls, and interstitial peratitis; the opacity, beginning at the circumference, extends to the center and disappears in the same order, lasting for a period of from five to to twelve months."

The changes in the teeth have been fully described by Hutchinson. "The teeth stand apart, with interspaces between, and are rounded or peggy in form instead of flat; they usually exhibit in their border a broad shallow notch, or two or three serrations; owing to their softness they rapidly wear away, from the deficiency of enamel, have a dirty grayish color. The teeth thus affected are the incissors and canines of the permanent set, especially the upper incisors. The change in form is due to syphalitic stomatitis during the first weeks of life, which affects the development; if a syphalitic patient escapes stomatitis, the teeth will not be affected."

The last sentence of this quotation plainly shows that syphilis *per se* is not the cause of the formation of the teeth, as has been claimed by Hutchinson and all others after him who have written on the subject. In the St. Louis Medical Society in 1873, I stated that it would be found that this peculiar condition of the teeth would be observed in almost every infant that had suffered severely from stomatitis during the earliest weeks of its life, and cited not less than twelve cases that fully corroborated my assertions. In every instance in which an infant has been seriously affected with any disease in the first half year of its life, its teeth would plainly indicate an arrest of development, occasioned by the lowered condition of the system. These peculiarities of the teeth must have been observed by many hundreds of physicians. I do not think one case can be shown in which illness has affected an infant without producing marked changes on the teeth. Even a fracture of one of the limbs will show its effects upon the teeth. I believe that if it was possible to observe the development of other parts of the body as plainly as we do that of the teeth, the same arrest of development would be noticed, as a lowered condition of the system could not affect the teeth only.

There are thirteen chapters on the affections of the uterus; two on the vagina; three on the vulva and pelvic floor; one on disturbances of the menstrual functions; two on disturbances of the reproductive functions; four on affections of the bladder and rectum, making in all one of the most complete treatises on this subject extant.

These two volumes contain invaluable information to the gynæcologist.

THOS. F. RUMBOLD.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK, For the Year 1882. Published by the Society 1882. (Truiar, Smith & Bruce, Printers and Binders, Syracuse, N. Y. 8vo., pp. 500.

This Society was organized April 4, 1806, consequently it is one of the oldest medical societies of the country; for this reason we very properly expect well digested papers, and equally learned discussions. No one who reads their transactions will have this expectation disappointed.

President Jacobi's address on infant feeding and infant foods is very interesting and practicable. The subject of reform in medical education gave rise to quite a longthy discussion.

Dr. Vander Poel's paper on the condition of the Tuberculosis question excited long and very interesting discussion. At the commencement of the discussion Dr. Moore, of Rochester, asked the almost unanswerable question, "What is scrofula?" While his remarks are very terse and clear, President Jacobi's are still

a little plainer, and as his remarks are so instructive, they are given at some length:

"I have asked myself the same question a hundred times, 'WHAT IS SCROFULA?' It appears to me that we use the word in a number of instances where we do not care to use much circumlocution. It is a convenient word to express a number of conditions. For instance, there is inflammation of healthy mucous membrane, a simple catarrh of the eye, lip, mouth, anywhere in the body, it heals very rapidly, and we do not speak of scrofula.

"But there is inflammation of another mucous membrane, or of the same mucous membrane in another individual, and it does not heal readily, and when we study the changes we find that they are of the following kind: New granulations spring up, proliferation of new cells takes place, as if it was to heal as readily as in the other case; but it does not heal, and instead of the formation of new epithelial structure, we see the ulceration extending deeper into the intercellular tissue, and although granulations form, the new cells break down as fast as they are formed, and we call that a scrofulous process.

"Or, there is a blow upon a bone, it heals quite well in a number of persons, but in others it does not. The same original process takes place in two persons; there is a little hemorrhage under the periosteum; a certain amount of irritation takes place, a slight proliferation of cells occurs; the periosteum is simply thickened, in one case, and total absorption follows; recovery is complete, and that is the end of the difficulty. In the other case, as soon as the new cells begin to be formed, the end is reached, so far as healing is concerned, and they break down as fast as they are formed. In the one case we have the healing process going on kindly, while in the other we have ulceration of the bone. Whenever such a slow healing process manifests itself, and there is a constant breaking down of new cells, whether upon a mucous membrane or bone, we call the individual upon whom such a slow healing process occurs, scrofulous. We did not know before hand that he was scrofulous, but we conclude that he was scrofulous after we have seen these processes. It is a convenient name to apply to a person who exhibits the fact that granulations form normally, but instead of terminating normally, they break down in an unusual short time, and instead of forming tissue, are dissolved. This is what we call scrofula.

"Or, an ordinary stomatitis occurs; the mouth is sore; salivation occurs, with irritation. The result is irritation of the lymphatic ducts in the neighborhood and swelling of the adjacent lymphatic glands. Now, we expect, in an absolutely healthy body, that when the stomatitis has subsided, the affected lymphatic ducts and glands will soon return to their normal condition. But we know that there are quite a number of cases in which, when such an enlargement of glands takes place, it does not disappear, and when the accumulation of cells is considerable,

the center will bread down, and we have, as the result, caseous degeneration of the center, and we call it a scrofulous condition. I have not been able to get any further than that. It is not necessary to fall back upon the blood, and upon humoral pathalogy, at all. I think that we are just as safe in saying that when we use the word scrofula, we are using a word which has no other significance than that it expresses a number of processes which take place abnormally, as described before."

Dr. E. C. Seguin's paper, "On the Efficient Dosage of Certain Remedies Used in the Treatment of Nervous Diseases," contains much practical information. He was led to prepare this paper by seeing uncured cases of nervous diseases, for which the attending physician had prescribed the proper remedy, but having administered it in does which, though justified by medical authorities, were wholly inefficient to influence the disease. In many cases the physician had been either wanting in experience or courage to fight his way to success against tradition, and book authority.

The first article he speaks of is the fluid extract of conium. The dose of the remedy as given by Wood, (1880) is "Dose m 1 to 2. (!)" Bartholow, "Dose m 2, m 5, increased to m 40." Quite a contrast to this is the doses administered by Dr. John Harley, of London. He administered it in doses of from ʒ ii (grm 8) to ʒ i (grm 32). By means of these quantities he obtained the paresis of nerves connected with the upper eyelid, arms and legs which is the chracteristic result of conium action on the spinal cord. "I have used conium a good deal in the last ten years, and have always employed the fluid extract as made by Squibb. I tried it in chorea, in spasms of paralized limbs, in general irritability, and in insomnia.

When the indication is present, as in chorea, to obtain muscular relaxation, after a few tentative doses of 20 to 40 minims. (grm., 1.2—2.4). I give at one dose 60, 80, or even 100 minims. (grm. 3.6—4.8—6.) These doses cause drooping of the upper lids (sometimes diplopia and paresis of the arms and legs. I do not repeat the dose until after the effects have passed off—in from 12 to 24 hours."

We have space to speak of another important agent that he mentions in his paper, viz.: *Aconitia.* This he used to relieve trigeminal neuralgia, with favorable results. "A large proportion of cases have been cured, and some very ancient cases (8 to 12 years) relieved by the medicine. A few cases, only, have been uninfluenced.

"In the last few years the alkaloid has been offered in pillular form by several reliable drug firms, and I can testify to the potency and reliability of Caswell & Hazard's tablets, and of Schieffelin & Co.'s pills. These firms furnish doses $\frac{1}{200}$ grain, and of $\frac{1}{100}$ grain."

PATHOLOGICAL ANATOMY, PATHOLOGY AND PHYSICAL DIAGNOSIS. A SERIES OF CLINICAL REPORTS COMPRISING THE PRINCIPAL DISEASES OF THE HUMAN BODY. SYSTEMATICALLY ARRAINGED IN ONE HUNDRED FULL PAGE ILLUSTRATIONS AND ONE HUNDRED PAGES TEXT. Complete in 25 Parts. $1.00 per Part. By J. A. JEANCON, M. D., Author of "Atlas of Human Anatomy." (Cincinnati: Progress Publishing Company, Pike's Opera House Building. Fourth Street, 1883. Folio, 15x20 inches.

In the specimen before us there are 20 beautifully colored plates. None can view them without being struck with the accuracy with which they portray the various affections of the brain. The text is short and to the point. A short history is given of each case, then of what was seen on post-mortem examination, after which are given the symptoms and pathology.

The pathological portion of the brain in each case is illustrated, different portions of which are lettered for their better explanation.

ANATOMICAL TECHNOLOGY as applied to THE DOMESTIC CAT. AN Introduction to Human, Veterinary, and Comparative Anatomy. With Illustrations, by BURT G. WILDER, B. S., M. D., Professor of Physiology, Comparative Anatomy and Zoology, in Cornell University, etc. and SIMON H. GAGE, B. S., Assistant Professor Physiology and Lecturer on Microscopical Technology in Cornell University, etc. New York and Chicago, A. S. Barnes & Co., 1882. 8vo., pp. 575, price $4.50.

At first sight one is apt to be disappointed with this work. One needs but to look over a few pages, to be struck with the evidences of much study and careful pains-taking. This work is intended to prepare students for practical work in comparative anatomy, and it differs from other manuals on the same subject in the following particulars, it assumes no previons anatomical knowledge or experience, yet is rapidly progressive, introducing in succession bones, muscels viscera, vessels, nerves, brain and organs of sense, it is based on the domestic cat. The terms of description and designation, apply to all vertebrates. They are technical and in his selection he has paid great attention to precision and brevity.

The reasons given for the selection of the cat, are that convenience and economy are consulted by the use of one which is at the same time widely distributed, common, easily kept, is convenient and of moderate size, so as to be easily manipulated and cheaply preserved. There is a general list of the instru-

ments and materials required for ordinary anatomical work, and directions are given for their care. It is noticeable that all directions for dissections and manipulation begin with a special list of the instruments and materials required, instructions are given for coarse injections, for the preparation of bones and for the use of alcohol as a preservative. The study of the brain includes a consideration of the typical vertebrate brain.

The work has a large number (134) of illustrations, showing the methods of making the preparations and the manner of using all the instruments. Without doubt, it is the best work on comparative anatomy in the English language.

THE PHYSICIAN HIMSELF AND WHAT HE SHOULD ADD TO HIS SCIENTIFIC ACQUIREMENTS. By D. W. CATHELL, M. D., late Professor of Pathology in the College of Physicians and Surgeons, of Baltimore. Third Edition. Baltimore, Cushings & Bailey, 262 W. Baltimore Street, 1883. 8vo., pp. 208, price $1.25.

The speedy sale of two large editions of this work, is the best evidence that the author has been successful in pleasing the reading medical public. The additions to this edition does not materially change it from those previously issued. It is a work full of pithy suggestions to physicians, every one of which is almost axiomatic. The following are good specimens:

"Never guarantee a cure or certain success, or a sure recovery even for a mosquito bite; guarantee nothing except that you know your duty and will do it."

"Ability to please and retain those who employ you in an emergency, or tentatively, is also a power that you should carefully cultivate."

"No one can succeed fully without the favorable opinion of the maids and matrons he meets in the sick room. The females of every family have a potent voice in selecting the family physician. I have often thought that the secret why so many truly scientific aspirants fail to get practice, is that their manner and acquirements do not appeal to the female mind."

"You will find that remembrance of the names of children and of patients you see but rarely, and the salient points of former interviews with them, are very useful adjuncts to other qualities."

"Children's likes and dislikes will control your destiny in many a family. people patronize various forms of quackery for no greater reason than that 'the children take it easily,' knowing from experience, that an attempt to give pills or bitter doses to refractory or spoilt children, means a fight and a failure."

THE DISEASES OF THE RECTUM. Including Fistula, Hemorrhoids, Painful Ulcer, Stricture, Prolapsus, etc. With Diagnosis and Treatment, by WM. ALLINGHAM, M. D., F. R. C. S., Surgeon to St. Mark's Hospital, for Fistula and other Diseases of the Rectum, etc. Fourth Revised and Enlarged Edition. With Illustrations, 8vo., pp. 168. (Phila.: P. Blakiston, Son & Co., 1882.) For sale by Frank Rivers, 204 N. 5th St. St. Louis. Price, cloth, $1.25; paper, 75 cts.

This book appears to have been well received by the profession in England and America as well as in France, Italy, Spain and Russia, as in the last four mentioned it has been translated into their languages. The work is gotten up in a systematic way and commences with the method of examination of patients, then taking up the various diseases as they occur in frequency.

Dr. Allingham's practice has been very large. In his hospital practice he has had 4,000 patients and from this very extended experience, he has written this work. It is probably the most practical work on these diseases, that we have in the English language.

Books and Pamphlets Received.

ARTICLE LV.

The Dispensatory of the United States of America, Fifteenth Edition. Rearranged, thoroughly Revised and Largely Rewritten. By H. C. Wood, M. D., Joseph P. Remington, Ph. G. and Samuel P. Sadtler, Ph. D., F. C. S. (Philadelphia: J. B. Lippincott & Co., 1883. St. Louis: H. R. Hildreth & Co.) Price $8.00.

The Diseases of Women, a Manual for Physicians and Students. By Heinrich Fritsch, M. D., Translated by Isador Furst, with 159 wood engravings. March No. of Wood's Library for 1883. (New York: Wm. Wood & Co., 1883. St. Louis: H. R. Hildreth & Co.)

The Pathology and Treatment of Diseases of the Ovaries. By Lawson Tait, F. R. C. S., Edinburgh and England. Fourth Edition, Revised and Greatly Enlarged. (New York: Wm Wood & Co., 1883. St. Louis: H. R. Hildreth & Co.)

An Index of the Practice of Medicine. By Wesley M. Carpenter, M. D., Interleaved. (New York: Wm. Wood & Co., 1883. St. Louis: R. H. Hildreth & Co.)

Alcoholic Inebriety, from a Medical Standpoint, with cases from Clinical Records. By Joseph Parrish, M. D. (Philadelphia: P. Blakiston, Son & Co., 1883. St. Louis: Frank Rivers) Price $1.25.

Lectures on Orthopedic Surgery and Diseases of the Joints, Delivered at Bellevue Hospital Medical College, During the winter Session of 1874-1875. By Lewis A. Sayre, M. D. Second Edition, Revised and Greatly Enlarged, with 324 Illustrations. (New York: D. Appleton & Co., 1883. St. Louis: R. H. Hildreth & Co.)

Fortieth Annual Report of the Managers of the New York State Lunatic Asylum at Utica, for 1882. (Weed, Parsons & Co., Printers, 1883.)

The Cornell University Register, 1882-83, Ithaca, N. Y.

Trichinæ; Their Microscopy, Development, Death, and the Diagnosis and Treatment of Trichinosis. By W. C. W. Glazier, M. D., Assistant Surgeon Marine Hospital Service. Illustrated,

17 cuts. (Detroit, Mich.: The Illustrated Medical Journal Co., Printers, 1883.)

Proposed Ordinance and Rules and Regulations, for regulating the Plumbing, House Drainage, Registration and Licensing of Plumbers, in the city of Philadelphia, as reported by the Committee of 21. (Philadelphia: P. Blakiston, Son & Co., 1883.) Price 10 cts.

The Percentage of College-Bred Men in the Medical Profession. A paper read before the American Academy of Medicine, Oct. 27th, 1882. By Charles McIntire, Jr., M. D., of Eastern Pennsylvania.

Fifth Bi-Ennial Report of the Trustees, Superintendent and Treasurer of the Illinois Southern Hospital for the Insane, at Anna, October 1st, 1882. (Springfield: H. W. Rokker, State Printer and Binder, 1883.

First Annual Report of the Board of Health of Kansas City, for the calendar year 1882. (Kansas City, Mo.: Press of Ramsey, Millett & Hudson, 1883.)

Some of the Misuses of Quinine as a Therapeutic Agent. By N. D. Gaddy, M. D. (Reprint from the Indiana Medical Journal, 1883.

The Doctorate Address delivered at the Fortieth Annual Commencement Exercises of Rush Medical College, by Moses Gunn, M. D., LL. D. (Reprinted from the Chicago Medical Journal and Examiner for April, 1883.)

First Annual Announcement of the Collegiate Department of the Chicago Dental Infirmary, of Chicago, Ill.; Session of 1883. (Chicago: Clark & Edwards, Printers, 1883.)

St. Clair Mineral Springs and "The Oakland." Illustrated Circular, Second (Revised) Edition. (St. Clair, Mich.: St. Clair Mineral Springs Co. Printers.

First Annual Report of the State Board of Health of Indiana for the fiscal year ending October 31st, 1882. (Indianapolis: Wm. B. Burford, Printer, 1883.)

The Best Methods of Treating Operative Wounds. By Henry O. Marcy, A. M., M. D., Boston U. S. A. (Reprinted from the *Medical Gazette*, Nov. 25th, 1882. New York: Birmingham & Co., 1883.)

Double Irrigation and Drainage Tubes; Uterine Dilitation by

Elastic Force. The Cure of Hernia by the Antiseptic Use of Animal Ligation. By Henry A. Marcy, A. M., M. D. (Reprinted from the Transactions of the International Medical Congress for 1881. London: J. W. Kolckmann, 1881.)

Transactions of the American Ophthalmological Society, Eighteenth Annual Meeting, Lake George, 1882. (New York: Published by the Society, 1882.)

Thirtieth Annual Report of the Pennsylvania Training School, for Feeble-Minded Children; Elwyn, Deleware County. (West Chester: F. S. Hickman, Printer, 1882.)

Two Cases of Reflex Laryngeal Cough, Due to Irritation of the Nasal Mucous Membrane, Carl Seiler, M. D., Philadelphia. (Reprinted from the *Archives of Laryngology*, Vol. III., No. 3, July, 1882.)

Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the United States for the Fiscal Year 1882. (Washington: Government Printing Office, 1882.)

Sur Quelques Causes de Maladies de L'Orville, Par A. Ducan, Chef de la Clinique laryngoscopique et Otologique. (Extrait de la Revue Mensuelle de Laryngologie, d'Otologie et de Rhinologie) (Paris: Octave Doin, Editeur, 1883.)

Handbook of Medical Electricity. By A. M. Roseburgh, M. D. (Toronto: Dudley & Burns, Printers, 1883.)

History of a Bone Impacted in the Subglotic Portion of the Larynx. By Ramon De La Sota, M. D., Leville, Spain. (Reprinted from the *Archives of Laryngology*, Vol. IV., No. 1, Jan., 1883.)

The Washington Plate, a Collection of Facts Relating to the Genealogy of Washington and the Origin of our Flag, for the first time put into permanent form. Sent by the New York Life Insurance Co. (New York: Root & Tinker, Printers, 1883.)

The Transactions of the American Medical Association, Instituted 1847, Vol. XXXIII. (Philadelphia: Printed for the Association, Times Printing Office, 1882.)

Transactions of the Medical Association of the State of Missouri, at its Twenty-Fifth Annual Session, held at Hannibal, Mo., May 16th, 17th and 18th, 1882. (St. Louis: Commercial Printing Co., 1882.)

The Opium Habit; Its Successful Treatment by the Avena

Sativa. A Paper read before the New York State Medical Society, with additions, giving a fuller description of its Therapeutic Action in Different Diseases, etc. By E. H. M. Sell, A. M., M. D. (Jersey City: Evening Journal Print, 1883.)

We are in receipt of the advance Proof sheets of the "Report of Proceedings of the Illinois State Board of Health." Quarterly Meeting, Chicago, April 12-14, 1883.

Aids to Medicine, Part I., (Double Part.) The General Diseases of the Lungs, Heart, Blood Vessels and Liver. By C. E. Armand Semple, B. A., M. B., Cantab., L. S. A., M. R. C. P., Lond. (New York: G. P. Putnam's Sons, 1883. St Louis: H. R. Hildreth & Co.) Price 25 and 50 cts.

News Items.

Article LVI.

The Law Regulating the Practice of Medicine and Surgery in Missouri.

Be it enacted as follows:

Section 1. Every person practicing medicine and surgery in any of their departments shall possess the qualifications required by this act. If a graduate of medicines he shall present his diploma to the State Board of Health for verification as to its genuineness. If the diploma is found to be genuine, and if the person therein named be the person claiming and presenting the same, the State Board of Health should issue its certificate to that effect, signed by at least four of the members thereof, and such diploma and certificate shall be deemed conclusive as to the right of the lawful holder of the same to practice medicine in this State. If not a graduate, the person practicing medicine in this State shall present himself before said Board and submit himself to such examination as the said board shall require, and if the examination be satisfactory to the examiners, the said board shall issue its certificate in accordance with facts, and the lawful holder of such certificate shall be entitled to all the rights and privileges herein mentioned.

Sec. 2. The State Board of Health shall issue certificates to all who shall furnish satisfactory proof of having received diplomas or licenses from legally chartered medical institutions in good standing, of whatever school or system of medicine; they shall prepare two forms of certificates, one for persons in possession of diplomas or licenses, the other for candidates examined by the board; they shall furnish to the county clerks of the several counties a list of all persons receiving certificates; *provided*, that nothing in this act shall authorize the Board of Health to make any discrimination against the holders of genuine licenses or diplomas under any school or system of medicine.

SEC. 3. Said State Board of Health shall examine diplomas as to their genuineness, and if the diplomas shall be found genuine as represented, the Secretary of the State Board of Health shall receive a fee of one dollar from each graduate or licentiate, and no further charge shall be made to such applicant; but if it be found to be fraudulent, or not lawfully owned by the possessor, the board shall be entitled to charge and collect twenty dollars of the applicant presenting such diploma; the verification of the diploma shall consist in the affidavit of the holder and applicant; that he is the lawful possessor of the same, and that he is the person therein named; such affidavit may be taken before any person authorized to administer oaths, and the same shall be attested under the hand and official seal of such officer, if he have a seal. Graduates may present their diplomas and affidavits as provided in this act, by letter or by proxy, and the State Board of Health shall issue a certificate as though the owner of the diploma was present.

SEC. 4. All examinations of persons not graduates or licentiates shall be made directly by the board, and the certificates given by the board shall authorize the possessor to practice medicine and surgery in the State of Missouri.

SEC. 5. Every person holding a certificate from the State Board of Health shall have it recorded in the office of the county clerk of the county in which he resides, and the record shall be indorsed thereon; any person removing to another county to practice medicine and surgery shall procure an indorsement to that effect on the certificate from the clerk of the county court, and shall have the certificate recorded in the office of the clerk of the county to which he removes, and the holder of the certificate shall pay to said clerk of said county the usual fees for making the record.

SEC. 6. The county clerk shall keep, in a book provided for the purpose, a complete list of the certificates recorded by him, with the date of the issue. If the certificate be based on a diploma or license, he shall record the name of the medical institution conferring it, and the date when conferred. The record of the county court shall be open for inspection during business hours.

SEC. 7. Examinations may be made in whole, or in part, in

writing, and shall be of an elementary and practical character, but sufficiently strict to test the qualifications of the candidate as a practitioner.

SEC. 8. The State Board of Health shall refuse certificates to individuals guilty of unprofessional or dishonorable conduct, and they may revoke certificates for like causes, after giving the accused an opportunity to be heard in his defence before the board.

SEC. 9. Any person shall be regarded as practicing medicine within the meaning of this act, who shall profess, publicly, to be a physician, and to prescribe for the sick, or who shall append to his name the letters "M. D.;" but nothing in this act shall be construed to prohibit students from prescribing under the supervision of a preceptor, or to prohibit gratuitous service in cases of emergency; and this act shall not apply to commissioned surgeons of the United States army, navy and marine hospital service.

SEC. 10. Any itinerant vendor of any drug, nostrum, ointment or appliance of any kind intended for the treatment of disease or injury, or who shall, by writing or printing, or any other method, publicly profess to cure or treat diseases, injuries or deformities by any drug, nostrum, manipulation or other expedient, shall pay to the State a license of $100 per month, to be collected as provided for by law, as all other licenses are now collected, and any person violating the provisions of this section shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine not to exceed five hundred dollars ($500), or by imprisonment in the county jail not to exceed six months, or by both such fine and imprisonment.

SEC. 11. Any person practicing medicine or surgery in this State without complying with the provisions of this act shall be deemed guilty of a misdemeanor, and punished by a fine of not less than $50, nor more than $500, or by imprisonment in the county jail for a period of not less than 30 days or more than 365 days, or by both such fine and imprisonment for each and every offence; and any person filing or attempting to file as his own, the diploma or certificate of another, or a forged affidavit of identification, shall be guilty of a felony and upon conviction thereof shall be subject to such fine and imprisonment as are

made and provided by the statutes of this State for the crime of forgery in the second degree, but the penalties shall not be enforced until a period of six months after the passage of this bill. *Provided, that the provision of this act shall not apply to those that have been practicing medicine five years in this State.*

SEC. 12. Whenever in this act it is provided that any duty or service shall be performed by any county clerk, such duty and service in the city of St. Louis shall be performed by the city register or health commissioner of the city of St. Louis, as if such officer was specially named to perform these duties and services.

SEC. 13. All acts and parts of acts inconsistent with this act are hereby repealed.

Approved April 2, 1883.

"THE JURY OUT WEST" has usually been regarded as the symbolification of all that is stupid and absurd, and its verdicts are extensively quoted as manifestations of unprecedented ignorance; but the verdict of an English jury, as recently given in the *London Lancet*, shows that the "jury out West" has reason for hope—for hope that others may yet surpass it in its peculiar notoriety for ignorance and stupidity.

The following written verdict was recently handed in by the foreman of a coroner's jury in New South Wales: "We are of A Pinion that the decest met her death from violent infirmation in the arm, produest from Unoan Caws."

THE CARDIAC MECHANISM AND THE DRUGS WHICH ACT UPON IT.—The number of nervous centers in or connected with the cardiac muscles has been much multiplied of late years, and is now sufficiently confusing to the ordinary student. These centers have, however, for the mammalian heart, in large part, only a physiological existence, the exact anatomy not being determined.

The centers whose action is more generally brought out in practical therapeutics are, 1st, two sets of motor ganglia in the heart-muscle, (*a*) one of which (corresponding to Ludwig's ganglion) inhibits, (*b*) while the other (corresponding to Bidder's, to Remak's, and to Löwett's ganglia) excites contractions. In ad-

dition, we have the heart-muscle itself, which some drugs seem to act upon directly, either exciting or paralyzing it.

2d. These cardiac centers are connected with three regulating centers, placed in the medulla and upper part of the spinal cord: (*a*) The first of these is the cardio-inhibitory center, situated in the medulla, communicating with the heart *via* the pneumogastric, and exercising a continually repressive influence upon the rapidity of the heart's beat. (*b*) The second center is in the upper part of the spinal cord, and it sends weak accelerating impulses to the heart *via* the sympathetic. (*c*) The third is the vaso-motor center, and it regulates the cardiac action only indirectly. Nerve-fibres pass from the heart to this centre (depressor fibres) which convey impulses depressing it, the blood vessels dilate and the heart beat is slowed.

The nervous mechanisms of the heart is made up of a fusion of sympathetic and cerebro-spinal fibres and cells, a fact which complicates its study. It should be remembered, however, that the heart beats automatically, and gets most of its motive impulses from local stimuli.

Cardiac tonics, therefore, must act chiefly upon the intrinsic mechanism, stimulating this or that motor-center according to the morbid conditions. In some cases, however, a medicine may apparently be a cardiac tonic when it really only affects the extrinsic mechanism.

M. Germain Sée has recently written a chapter on cardiac therapeutics in which he gives the following table showing the special action of different drugs on the heart.

	STIMULATION.	PARALYSIS.
Cardiac muscle.	Digitalin.	The same in the second period of action.
	Iodine in small doses.	Emetin.
	Camphor.	Salts of copper, barium and potash.
	Caffeine.	Chloral in large doses.
		Scillaine.
Intra-cardiac muscular motor centers.		Saponine in its last period of action.
		Iodine in large doses.
Intra-cardiac inhibitory centers.	Muscarin.	Atropin.
		Fabarin.
		Spartine in large doses.
Intra-cardiac ramifications of the inhibitory filaments of the vagus nerve.	Nicotin.	Pilocarpin, second phase of action
	Pilocarpin.	
	Calabar bean.	
Trunk of the vagus nerve.	Aconitin.	Spartin.
	Nepalin.	Nepalin, second phase of action.
Accelerator filaments of the great sympathetic.	Apomorphin.	Spartin.
Medullary cardio-inhibitory centers.	Digatalin.	Chloral.
Vaso-motor centers.	Bromide of possassium.	Croton-chloral.
		Hydrocyanic acid.

This list is by no means complete. Thus, to the stimulants of the cardiac muscle we must add one or more of the active principles of convallaria, and atropin should be included as a paralyzer of the entire inhibitory mechanism.

M. Sée's table, however, will show that the term "cardiac tonic" is a vague one, and it suggests one important consideration, which is, that in order to study scientifically and carefully the action of drugs on the heart, it is necessary to use the isolated active principles singly at first, and not crude preparations which contain a number of them.

THE SOUTH-EAST MISSOURI MEDICAL ASSOCIATION.—The Eleventh Semi Annual Meeting will be held at Fredericktown, Mo., commencing Tuesday, May 1st, 1883. You are respectfully solicited to attend.

R. T. HENDERSON, Pres.

N. H. BONDURANT, Cor. Sec.

THE Twentieth-sixth Annual Session of the Medical Association of the State of Missouri will meet at Jefferson City, Mo., in the Hall of the House of Representatives, on Tuesday May 15, 1883, and continue in Session three days. The Society will be called to order at 8 o'clock P. M. You are cordially invited to be in attendance,

R. E. YOUNG, M. D., Chairman Com. of Arrang'm'ts.

J. W. BRENT, M. D., Secretary.

BEGINNING with the First Number of Vol. X. for May 3rd, 1883, the *Maryland Medical Journal* will be issued as a weekly publication and willl appear every Thursday. Each number will contain sixteen pages double column of solid reading matter.

AMERICAN MEDICAL ASSOCIATION.—The Thirty-fourth Annual Session will be held in Cleveland, O., on Tuesday, Wednesday, Thursday and Friday, June 5, 6, 7, 8, 1883, commencing on Tuesday, at 11 A. M.

Secretaries of Medical Societies as above designated are earnestly requested to forward *at once*, lists of their delegates.

Also, that the Permanent Secretary may be enabled to erase from the roll the names of those who have forfeited their membership, the Secretaries *are, by special resolution*, requested to

send to him annually, a corrected list of the membership of their respective societies.

A CONSULTATION PREFERRED.—Professor of Obstetrics:—"Young man, what would you do for a case of post-partem hæmorrhage?" Student behind the stove-pipe:—"Would run like h—l for a doctor, sir."—[*Exchange.*

MEDICAL professor to raw student: "Where is the glottis?" "I don't know, sir. I think it is on the shelf in the dissecting-room with the rest of your surgical instruments."

DR. ALBERT G. CRAIG, Vevay, Ind., suggests the substitution of linseed oil for olive oil in the composition of liniments. He has found it better as well as much cheaper.—[*Can. Med. and Surg. Jour.*

A SIX-YEAR-OLD'S IDEA OF THE UMBILICUS.—While studying his anatomy during the administration of a bath, this hopeful (son of a physician) remarked: "Mamma, I think the navel must be where I was *finished of!*"—[*Med. and Surg. Rep.*

JAMES T. FIELDS used to tell this story of Dr. Channing: "The reverend doctor and the medical doctor were both at a party in Boston one evening, and some one being taken ill, the man of medicines, Dr. Walter Channing, was summoned. The servant entered the room where the brothers were seated, and said, 'Dr. Channing is wanted.' 'Which Dr. Channing?' said Walter the physician, 'the one who preaches, or the one who practices?'"—[*Ibid.*

A NEW PROTECTIVE.—Dr. Malinit (*Mediz. Obozr.*) recommends mixing, collodium ℔ j, caster oil ʒ j, almond oil ʒ ss, and carbolized oil ʒiij–ʒiv, and spreading it over a glass plate smeared with glycerine. The fluid rapidly dries, forming a transparent, thin, soft and light sheet, which when used, suffers no alterations from the contact with wound discharges, and may be employed repeatedly (of course, each time after its washing in a carbolic solutio).—[*Ibid.*

AN EMPTY SPOON.—A young minisiter, who was not quite

self-satisfied with his own discourses, was always very curious to know what others thought of them. The Lord permitted him to gratify his curiosity one Sabbath evening, as he was passing the cottage of an humble but pious laborer. That good man was kneeling with his family, and the young minister paused a moment to listen. He was thanking the Lord for his spiritual mercies, and for the blessed Bible on which their souls might feed, "for thou knowest, oh, Lord," he said, "that we have been fed this day out of *an empty spoon.*"—[*The Sanitarian.*

VOMITING IN PHTHISIS.—To relieve this symptom, Dr. Woillez painted the pharynx with a solution of bromide of potassium, and found it very useful. A pencil of charpic dipped into a solution of bromine in two-thirds of water was passed rapidly into the pharynx before meals, the patient being required to abstain from expectorating as long as possible. In several cases the vomiting was arrested by the first application, while in others the action, though less immediate, was beneficial.—[*Journal de Thérapeutique.*

INJECTIONS OF BROMIDE OF POTASSIUM IN CHORDEE.—Dr. Cambillard, in his *Thèse de Paris* for 1881, advocates the employment of a solution of patassic bromide to quiet chordee. Every one will admit, he truly says, that the painful erections called chordee are very difficult to relieve, and that the number of the remedies proposed is only equalled by their inefficiency. He has obtained uniformly good results from urethral injections of the following:—℞. Aquæ, ℥ij.; glycereni, ℥iij.; potassii bromidi, ℥iss.; tinct. opii, ℥j.—M. Sig. Four injections of this quantity in twenty-four hours. To prevent the nocturnal attacks, he insists that the last injection be practiced just on retiring for the night. These injections cause almost no pain, and are very effective in relieving the distress.—[*Med. News.*

DR. CAMBILLARD, in his *These de Paris,* for 1881, advocates the employment of a solution of potassic bromide to quiet chordee. Every one will admit, he truly says, that the painful erections called chordee are very difficult to relieve, and that the number of the remedies proposed is only equalled by their inefficiency.

He has obtained uniformly good results from urethral injections of the following:

℞.—Aquæ.....℥ij.
Glycerini.....℥iij.
Potassii bromidi.....℥iss.
Tinct. opii.....℥j.—M.

Sig. Four injections of this quantity in twenty-four hours.

To prevent the nocturnal attacks, he insists that the last injection be practised just on retiring for the night. These injection cause almost no pain, and are very effective in relieving the distress.—[*Med. News.*

PALPITATION OF THE HEART.—The British Medical Journal says:—" In the Appendix to the British Army Medical Department Report, Dr. Veale has given a summary of the ascertanied or most probable causes of palpitation in the cases he has examined. Of these, malarial fever ranks highest, followed by intemperance, heat of climate, marching on active service, exertion generally, excessive smoking, hardships on active service, and several minor causes. He does not consider that the pressure of the valise or of the belts now occupies a prominent place, as it fomerly did, although it may still contribute. He speaks very decidedly of the injurious effect of excessive smoking, although he hardly assigns to it as high a place among the causes as we should be inclined to give it, especially when combined with drinking. But it is a cause which it would be extremely difficult to abate, though probably something might be done in the way of issuing less "villainous stuff" to the soldiers than they are in the habit of smoking, the soldier loves his pipe, and its value as a 'care-breaker' may be, and I dare say is, very great; much caution would therefore be needed in any attempt to curtail this luxury, but in the meantime it would certainly be good economy on the part of the Government to insist that such a deleterious substance as the 'twist' or 'stick' tobacco should never be sold in canteens, or issued to the troops on board ship or in the field." If any one doubts the injurious influence of this tobacco on the heart's action, we recommend him to test it by taking the sphygmograph tracings of even an habitual smoker, before and after indulging in a pipe of it."—[*Therapeutic Gazette.*

A NEW GALACTAGOGUE.—According to Dr. Anderson, nursing women in Jamaica are accustomed to drink an infusion of the

leaves of *Gossyphium barbadensis*. Six or eight leaves are sufficient to make a cupful of this infusion which, when sweetened with sugar, has a very pleasant taste, may be taken to the extent of four or five teacupfuls in the day without inconvenience, and invariably stimulates the flow of milk.—[*Gaz. Med. de Paris* February 17, 1883.

A NEW FUNCTION OF THE RED-BLOOD CORPUSCLE.—From an elaborate experimental study, Dr. G. Fano believes that he has succeeded in demonstrating that peptones, whether transfused or absorbed from the digestive tract, are directly transfused into blood by a process of disintegration by which coagulable albuminoids and globulin are produced. The red-blood corpuscle is the active element in producing this change, which results in a direct increase of specific gravity, probably its potassium salts are derived from the peptone.—[*Lo Spèrimentale*, 1882, pp. 256, 370.

IN the new German Pharmacopeia three hundred and sixty articles have been struck out, and forty-eight added, a decrease of three hundred and twelve, the whole number being about six hundred. In a new edition of the United States Pharmacopeia two hundred and twenty-nine articles were cut out, and two hundred and fifty-six added, a net increase of twenty-seven, the whole number being one thousand.

TREATMENT OF VENEREAL AND COMMON WARTS.—Prof. Unna recommends for the treatment both of venereal and of ordinary warts the continuous application of unguentum hydrargyri, containing 5 per cent. of arsenic. In the case of a young girl upon whose hands were a hundred or more warts, the application for three weeks of a plaster, containing in each 0.2 square metre 10 grammes of arsenic and 5 grammes of mercury, caused entire disappearance of the disease without any irritation of the healthy skin. Cure was effected not by necrotic destruction of the warts such as occurs in the use of caustics, but by reabsorption, as in case of spontaneous cure.—[*Monatschrifte für prakt. Derm.*, No. 3, 1882.

ANÆSTHETIC MIXTURES.—The Vienna mixture, used is 8000 operations without accident, consists of three parts of ether and

one of chloroform; Billroth's, three of ether, one each of chloroform and alcohol. The committee of the Medico-Chirurgical Society of Great Britain, recommends one part, by measure, of two of chloroform, and three of ether.—[*Gaillard's Med. Jour.*

CHAMOMILE TEA IN INFANTILE DIARRHŒA.—Dr. Elliot advocates the use of chamomile tea in the diarrhœa of young children (*Practitioner*, December, 1882). The dose, for infants under one year, is one-half to one drachm, and double that quantity for older children, given two or three times a day, or oftener. The rationale of the action is the power the drug possesses of subduing reflex excitability. This power belongs especially to the volatile oil contained in the flowers. A decapitated frog, previously fortified by a dose of chamomile oil, was not susceptible to the influence of strychnia, according to Grisan. He also calmed titanic convulsions, due to strychnia, by the same oil.—[*Med. Rec.*

A FASTING DOCTOR.—We are informed that a certain Dr. F. T. Cook, of Taylor, Texas, has been outdoing Tanner in the fasting line. On March 3, he had fasted for fifty-five days "with the exception of a pound of soda crackers, a small piece of Graham bread, and an occasional glass of sweet milk"—which are important exceptions. It seems to be a disputed question whether the cause of the fast is a diseased stomach or an affection of the heart. A local paper states that "while the Doctor frankly admits being desperately in love with a certain little lady, still he holds that a man can love on an empty stomach quite as well as he can with one filled with all the luxuries of life.—[*Ibid.*

THE TREATMENT OF SCALP WOUNDS.—Dr. W. S. Parker, of Piqua, Ohio, writes: "An article on scalp wounds in the last number (Feb. 24) of THE MEDICAL RECORD, prompts me to communicate a simple device I have used for the last twenty years in such cases. After cleansing the wound thoroughly, all hæmorrhage being suppressed, bathe the parts freely with balsam Peru, a time-honored, but none the less valuable antiseptic. Then, presupposing its existence, comb up along the edges of the wound, and exactly opposite, for the space of, say half an inch, the hair, which twist into a thread and tie with a *single* turn, drawing the edges of the wound gently but firmly together.

Having previously laid a well waxed ligature beneath the hair and parallel with the wound, tie with the thread the single loop of hair, employing a surgeon's knot. Repeat the process, *i. e.*, another single loop and a surgeon's knot, and you have a fixed dressing. The coaptation of the flaps is necessarily perfect. I have not hesitated to use sutures when necessary, owing to the absence of hair or its being too short, or from loss of tissue, and in my entire experience have had but one case of erysipelas following their use, which seems to bear out Professor Gross' teaching of the harmlessness of sutures in the scalp."—[*Ibid.*

IODINE AND BLISTERS IN TABES MESENTERICA.—In tabes mesenterica, Dr. Bouchut, of the Children's Hospital, recommends the application of blisters, or the tincture of iodine, upon the abdomen. If ascites be present, tapping should be employed without hesitation. The *régime* to be followed should be very severe—beef-tea, eggs, raw milk and claret. If diarrhœa be present, enemas of borax, one drachm each time, should be given, and three or four teaspoonfuls of glycerine in the day, by the mouth. Bismuth, or phosphate of lime, would be very useful. Your correspondent tried this treatment in an apparently hopeless case, and a rapid recovery ensued. The disease was far advanced, and and the child was abandoned by its ordinary medical attendant. —[*Medical Press and Circular.*

SASSAFRAS IN RHUS POISONING.—Dr. R. L. Hinton claims that sassafras tea is almost a specific for the rash produced by poison oak. This is an infusion of the bark of the red sassafras. The poisoned parts are covered with compresses soaked in the cold infusion, while internally there is administered this infusion warmed, sugared, and with milk according to the taste. In other acute ypes of skin diseases Dr. Hinton has found sassafras infusiot of value.—[*The Medical Brief.*

GROUND OIL CAKE FOR POULTICES.—A French writer, M. Lailler, declares that linseed meal deprived of oil is, contrary to the prevalent notion, much better adapted for poultices than the crushed seeds. The oil in the meal quickly becomes rancid, thereby seriously interfering with its utility for dressing wounds, while it has never been noticed that the oil at all enters the poultice. Free from any irritating properties, the exhausted linseed

makes a lighter poultice, and retains its heat much longer.—[*Ibid.*

VEHICLE FOR QUININE.—One of the best vehicles for administering quinine, besides elixir of licorice, is an infusion of coffee, with or without flavor of chloroform. A good formula is the following:

℞. Quiniæ Sulphatis..... 10 grs. or more.
Infusi Coffeæ Tostæ, fl..... 4 ounces.
Syrupi Chloroformi, fl. ..... 2 ounces.

Mix the sulphate of quinine with the infusion of roasted coffee; when cold, add the syrup.

The "syrupus chloroformi" is prepared by dissolving twenty drops of chloroform in two fl. drachms of alcohol, and briskly shaking the liquid with three fluid ounces of syrup.—[*Ibid.*

THE irrepressible printer has turned up this month with his usual mistakes. A sentence which should have read as follows was twisted and contorted until its best and probably only friend —the author—would fail to recognize it: "I have seen cases where the patient insisted that there was a foreign body under the lid, and had come for its removal." This is how the brilliant typo made it read: "I have seen cases where the patient insisted that there was a *frozen body* under the *bed*, and had come for its removal."

"Have you any 'Field's Aroma,' this morning? asked a hay fever sufferer of the druggist." "Never heard of it," promptly replied the pill-worker; "are you sure you've got the correct name?" "I think so; but here's where I saw it," said he, handing a paper to the clerk. The item read: "The aroma of the fields of growing wheat is highly recommended for hay fever." The sneezer was advised to buy a farm.

ADVERTISEMENT FROM AN ENGLISH CONTEMPORARY.—"A medical student whose means are exhausted would like to meet some one who would advance him the necessary sum to complete his studies at a moderate rate of interest. If necessary, he would, as a guarantee, at once marry his creditor's daughter, or, if he prefers it, would give an undertaking to do so on passing his final examination."—[*Boston Med. Jour.*

PILOCARPINE IN POLYURIA.—Upon a patient suffering from Polyuria azoturica, there were used beladonna, bromide of potassium, laudanum, injections of morphine, and electricity without effect. Hypodermic injections of nitrate of pilocarpine (one p. ct. solution) however diminished the daily secreted urine from seventeen pints to three and a half pints, and the quantity of urea was decreased from 140 grains to 46 grains. The body weight increased steadily. In Polyuria glycosurica, the sugar rapidly disappeared. Fifteen injections will generally cure these diseases.—[*H. Morgagni Giornale.*

THE STRUGGLE FOR A LIVING.—We quote the following from a presidential address to the Maine Medical association by the late Wm. Warren Greene, M. D.:

"Witness the large number of doctors in every city struggling for a mere existence, and see how few out of the whole number really do the work. See how in almost every country village a full practice for one or two good men is piece-mealed by sharp and often acrimonious competition to the detriment of all.

"It would seem that in a calling so high, so noble, so sacred, men fit for such ministry should be sought for; but the great question of the young graduate is not 'Who wants me?' but 'Who will employ me?' not 'Who needs me?' but 'Where can I get a living?' In the case of four physicians dying, each in a country village, during the last year, I am credibly informed that in one instance two, in another three, the third five, and in the fourth case seven new men came to look the field over within ten days after the doctors' death, sometimes before the burial. In one case two attended the funeral, and in another, the widow had three letters from aspirants for the vacant place while the dead body of her husband still lay in the house.

"It is a hackneyed saying, with which two many ears are tickled, that "there is always room for good men.' Applied to the present condition of our profession it is false. Were only good men and the best men admitted it would undoubtedly be true. But all over the land, in city and in country, are well educated, cultured gentlemen, honest and loyal, striving in vain to secure a competence—yes, a bare living even—and too often is disappointment mingled with shame and mortification at the success of ignorant and unprincipled rivals. I have said that

the evil results of this excess in numbers are manifold. It leads to over-practice and to bad practice. The man who is hard pushed, who has a few patients and needs more, is tempted to make much of little; to magnify the importance of his cases, both in his own mind and to his patrons; to make uncalled-for visits, and to give too much medicine; and unnecessary medication soon ceases to be rational. Patients are injured in mind and body. The community is injured by teaching the people to attach undue importance to trivial diseases, and to over-estimate the value of treatment therein. Ligitimate, honest practice suffers in reputation; money is obtained under false pretenses."—[*The Medical Record.*

SMOKIGN FOR HEALTH.—"Don't you know it's very wrong to smoke, my boy?' said an elderly looking lady in a railway waiting-room, to young America, who persisted in puffing a cigarette, much to the old lady's discomfort.

"Oh, I smoke for my health," answered the boy, emitting a volume of smoke from his mouth, which almost strangled the old lady.

"But you never heard of a cure from smoking," continued the old lady, when she had regained consciousness.

"Oh, yes, I did," persisted the boy, as he formed his mouth into a young Vesuvius; "that's the way they cure pigs."

"Smoke on, then," quickly replied the old lady, "there's some hope for you yet."—[*Sanitarian.*

CONSTIPATION IN THE INFANT.—Dr. E. B. McCormick, Masonville, Ky.: In response to the request of Dr. J. A. Postlewait, of Tarkie, Mo., in your last issue, I will suggest that the doctor prescribe the following for his patient:

℞. Resinæ podophylli..... gr. iv.
Alcoholis..... ℥ ss.

M. Sig. Five to ten drops, night and morning, for a child one year old.

If there is indigestion, tr. nux vomica, should be prescribed at the same time.—[*Med. Age.*

LIGATION OF THE INNOMINATE.—Mr. Mitchell Banks tied the innominate artery on February 28, at the Liverpool Royal In-

firmary, for aneurism of the second portion of the subclavian. The common carotid was also ligated. Mr. Girdlestone's kangaroo tendons were used with strict antiseptic precautions. The patient improved rapidly, and has left the infimary with his aneurism much better. This is the twenty-third case in which the innominate has been ligated; twenty-one proved fatal.—[*Lancet*, March 31, 1883.

POST-GRADUATE INSTRUCTION.—The subject of post-graduate instruction is one which at the present time is engaging profound attention. The mass of reputable physicians of any school deplore the diploma manufactories which are inundating the country with a set of men, granted the power to practice, without the necessary qualifications. This is a plain, patent fact, which can not and must not be ignored. The demand for a better grade of education, higher standards, preliminary examinations, etc., for the under-graduates, and well established Post-Graduate Colleges, managed by the best teachers that is possible to get together, are among the reforms that are being sought by the profession. The organization of a New Post-Graduate College in New York, and one in St. Louis, are significant facts, and show that the leaders in the profession see the necessity and the demand for institutions of this kind. We wish both schools much success, and they shall have our hearty support, but at the same time, they must keep free from any entangling alliances which will hinder their usefulness.—[*New England Medical Monthly.*

A MODDERN MIRACLE.—The *New Orleans Picayune* says that a medical man in New Orleans, who is fond of his little joke, called on a colored minister, and began to catechise him: "Why is it," said he, "that you are not able to do the miracles that the apostles did? They were protected against all poisons and all kinds of perils. How is it that you are not protected now in the same way?" The colored preacher responded promptly: "Don't know about that, doctor. I 'spect I is. I've taken a mighty sight of strong medicine from you, doctor, and I is alive yet."

BROMIDE OF ETHYL AS AN ÆNSTAETIC IN LABOR.—Lebert (*Archives de Tocologie*, June, 1882,) says, that while chloroform has its dangers and ether its disadvantages, ethyl-bromide

is absolutely safe. Its employment hastens labor, and whilst it diminishes sensibility to pain, the intellect is scarcely at all affected. Its administration causes a dilation of the cerebral vessels, thus preventing syncope. Recovery from its use is speedy. There are no after-affects. It is to be given only during a pain, and if necessary, for hours. When pure, it is colorless, of an ethereal odor, causing when inhaled neither cough nor suffocation. Lebert is enthusiastic over it, and insists on its use in every labor, robbing, as it does, parturition of every pang.—[*American Journal of Obstetrics*, October, 1882.

"FATHER," said Johny, "this paper says that 'many prominent citizens are now ill with pneumonia and kindred diseases.' What is kindred diseases, father?" "Why, my son," said Smith, "a kindred disease is—is—is—why—yes, yes! a kindred disease is one that runs through an entire family—kindred, relatives, you know. Surprised you didn't know that, Johny."—[*Boston Transcript.*

FAITH CURE.—"Have you ever tried the faith cure?" asked a long-haired, sallow-faced stranger, addressing a gentleman who sat behind him in a street car. "I have," was the answer. "Do you believe in it?" "I do." "May I ask, then, of what you were cured?" "Certainly, I was cured of my faith."

SCARS—TO OBVIATE.—The *Boston Journal of Chemistry* claims that the following mixture placed upon a granulation surface will prevent the scars from appearing at all unsightly, and at times preventing them from being noticeable: Take of borax an ounce and a half, of salicylic acid twelve grains, glycerine three drachms, rose water six ounces; make a solution.—[*Chicago Med. Review*, December 1.

FUNGUS CANCER AND FEVER SORES—LIME.—M. P. Greensward, M. D., Poughkeepsie, N. Y., writes: About three months ago I was terribly puzzled to find an effectual way of treating fungus cancer. It was about the size of a small chestnut, situated near the second joint of the middle finger, of ten week's duration, bled at the slightest touch, had a small neck and large body, looking like a mushroom, and had previously continued

to grow in defiance of all remedies used by several very able physicians—one of them recommending amputation of the finger.

I tried nitric, alternated with muriatic acids, with but little effect. At last, almost in despair, I tried prepared lime, expecting that the blood which flowed from this cancer at the slightest touch would unite with the finely powdered lime and slack it, when it would corrode and destroy the cancer, and so the event proved. In a few days I removed all the fungus growth and in three weeks it was cured, being drawn out by the roots.

In addition to the dry lime I used a plaster made of finely powdered lime and lard. This I placed over the cancer, after freely sprinkling it with dry lime.

I was led to use this remedy by reflecting on the great value of linseed oil and lime-water in burns, and was led to use it in fever sores, and have never found or tried a finer remedy for that purpose. It draws the fire from the fever sore just as quickly and as effectually as it draws fire from a burn.—[*Medical Summary*.

Translations.

Article LVII.

FROM THE GERMAN.

RESORCIN AS AN ANTIPYRETICUM. By Dr. Fürst of Vienna. [Translated for the Journal.] By S. Pollak, M. D., of St. Louis.

Resorcin was given in three hundred cases of puerperal fever, where the temperature has reached a very high degree, in doses of three grammes, and repeated with regularity, and invariably lowering of temperature to the nominal condition—never lower—was the result. This change of temperature was always accompanied by profuse perspiration. It lasted several hours. The remedy had to be repeated in the evening, but in much smaller doses.—*Med. Zeitung.*

Resorcin Subcutaneously in Erysipelas (By Dr. Skibnewsby, St. Petersburg). A five per cent solution was injected in two virulent cases of Erysipelas, one idiopathic and the other traumatic, 15 times in each case, with complete arrest of the progress of the disease. In both cases the temperature was lowered rapidly, even below the normal.—[*Med. Zeitung.*

Resorcin in Anthrax (By Dr. Andeer Wurzburg). Resorcin is absorbed in every part of the skin a of frog, but is not absorbed by the healthy skin of men. It causes neither irritation nor paralysis. It will not discolor it; it does this in the pathological skin. It is, as a rule, the first sign that absorption has taken place. It will also stain the urine, and give it an olive, brown-green, and even blackish color, and with this and the resorcinized skin, a good amelioration will follow in all cases of lepra, rupia, variola, scarlatina and erysipelas. In all skin diseases depending on a parasitical micro-organism, it will have a beneficial result when given in suitable doses.

In a typical case of *anthrax* (where anthrax bacillii were easily demonstrated, and rabbits ineculated with it died septically). Resorcin was used with a rapid, good result. An unguent containing fifty per cent of R. was thickly applied to the pustula maligna, and colored with gauze. Pains ceased quickly, the highly colored pustules and nodules blanched, softened, and the necrosed cores could be easily extracted; recurring pustules yielded promptly to the R. unguent; regeneration of the epidermis ensued quietly.

The purest R. never irritates the tissues, nor causes any eruption, is therefore to preferred to all aromatic disinfectants. It never causes narcotism of any kind.—[*Med. Zeitung.*

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Original Contributions.

Article LVII.

Report of a Case of Battey's Operation.* By N. A. Drake, M. D., of Kansas City, Mo.

In December, 1881, I was consulted by an intelligent colored girl, 21 years of age, for painful menstruation.

She said she always suffered terribly during her monthly periods, so much so that she was obliged to be in bed half or two thirds of her time. I gave her a superficial examination, and as she was not suffering then, asked her to see me again when menstruating.

Several days after she sent for me. I found her on the floor writhing in pain, which appeared to be spasmodic, simulating labor pains. She had not yet commenced to flow. I proposed to give her morphia hypodermically, but she said she could not take morphia, it made her so sick. However, I gave one-quarter grain, guarded by one one-hundred and twentieth grain atropia, as per Barthelow. When I inserted the needle she went off into a convulsion. From appearance would call it hystero-epileptic. This was followed by a State of quietness that lasted for several minutes. She came out of it with one of those paroxysms of pain.

I was informed she would have such convulsions many times a day during menstruation; and when she was well she would have them on the least excitement, mattered not where she was, she would fall down in a fit.

I used all the external applications usual in these cases, to cause her to menstruate, viz.: hot hip baths, foot baths, heat locally, hot vaginal injections, etc., etc.

The nausea did follow the use of morphia. It seemed to me I never saw more obstinate nausea; the stomach would retain nothing for some time; but after many repeated doses of cerium she got better. This state of things continued until the menstrual flux became established. The stomach, however, remained

* Read before the Jackson County Medical Society, January, 1883.

very irritable, and the pain continued, although not so severe.

I think I gave her more relief by small doses of atrophine hypodermically than from anything else.

When she got around from this she came to my office for an examination.

I found her, for her class, a very intelligent girl. Had lived for several years in one of our best families in the city.

Her history, as related by herself, is about as follows: She commenced menstruating when about sixteen years of age, and it was always painful. More at times than others.

Had had these fits since she commenced to menstruate; has falling of the womb, and had worn a pessary for nearly a year. The stomach had always troubled her. Had had all the diseases imaginable, to let her tell it. Had been catheterized for nearly three years, nearly all the time. Sometimes just before menstruating could pass water for a few days. Was paralysed for several months a couple of years previous. Could not walk for some time.

On examination I found a closed bar pessary in the vagina, and it was nicely adjusted. Removed it, and after a thorough investigation, could find nothing wrong only the uterine displacement and a prolapsed ovary. Some cystitis, as a matter of course, but from analysis of urine could find no disease of kidneys.

After considering some time, I put her upon a constitutional treatment, which amounted to but little, as her stomach would not tolorate anything any length of time. Gave bromides, and they were retained till her fits were not quite as often. The lady with whom she lived catheterized her every day, or every other day. She had learned, if she went without drinking, she could go three or four days without having catheter passed.

You will at once discover that the hysterical element in the girl's nature largely predominated, although I saw her in some of her convulsions when they had more the appearance of epilepsy.

Her next menstrual period was worse, if possible than the previous. I used atropia in larger doses, and finally by combining a little morphia with it, succeeded in controling pain to a great extent.

It is not necessary for me to follow the case from month to

month, as each menstrual period was, practically, a repetition of the other.

I became convinced that medical treatment would do her but little good, and after considering the case from every standpoint I advised the removal of the ovaries, or marriage, expecting pregnancy might be beneficial.

The latter course she declined, and after a short time to consider it, she accepted the former, after I had stated to her plainly the dangers of the operation, and the chances of a cure if she should get well of the operation. She was anxious to take the chances, as she could expect no permanent effect from medical treatment after having apparently tried and exhausted nearly all known therapeutic measures.

Pof. Hegor, of Germany, probably was the first surgeon to remove the ovaries for diseased conditions, July 27, 1872.

We read of the amorous Lydian Kings having their concubines spayed, so they might preserve their beauty, etc., etc., and to satisfy their insatiable lust; and we also read of a Hungarian *sow gelder* spaying his own amorous daughter.

But, as stated above. Prof. Hegor was probably the first man to do the operation legitimately, and it was a few days later, August 2, 1872, done by Lawson Tate, of England. Prof. H. first did the operation to arrest the growth of fibroid tumors of the uterus. His reasons for it were evident. It had been observed in woman with fibroid tumors that after the change of life the tumors ceased to grow, and in many became smaller. He conceived in this that the life of the fibroid tumor was the blood supplied by the monthly congestion. Hence, if he would remove the ovaries he would produce premature change of life and thus stop the growth of the tumor. Upon these hypothesis he acted, and he reports quite a number of cases in proof of the correctness of his theory. And also the operation being far less dangerous than the eneucleation of the tumor or the extirpation of the womb.

Other operators have followed him, and all corroborate the correctness of his views.

But to Dr. Battey, of our own country, are we indebted for the operation for the cure of dysmenorrhœa, epilepsy and mental diseases bordering on insanity, after all other means and remedies have failed.

(Dr. Battey operated in August, 1872, a few days later than

Dr. Tate; but he, Battey, published his cases to the world, while Dr. Hegor and Tate did not publish theirs. Hence Dr. B.'s claim to priority.)

Probably in no country has gynæcology made so rapid strides in the past twenty-five years as in America.

The profession at home concede to Dr. Battey, of Romer, Ga., a front rank for this operation which rightly goes by his name.

In Europe it is not an acknowledged operation for dysmenorrhœa, and we have some surgeons among us who are yet unwilling to accept any great operation unless it is brought across the water. I have heard Emmet's operation condemned, and yet for all of that it has taken its place as an acknowledged operation, even among English surgeons, who are not willing to accept originality from the United States. And Battey's operation is forcing its way to an acknowledged place in the same way.

Dr. Goodell says, and his authority is unquestioned: "The operation of spaying is yet in its infancy, and time is needed to develop its resources. But I can not help feeling that in carefully selected cases, it will prove the sole means for curing many mental and physical disorders of menstrual life, which have hitherto baffeled our science, and are a standing opprobrium to our profession."

What I hoped and expected to gain by the operation: Cessation of menstruation directly. Although tabulated cases by Emmet and Goodell give a small per cent of menstruation so-called, after operation; but I can not look upon it other than a flux, and thus to relieve the terrible monthly pains, and through this to cure the hystero-epileptic convulsions.

The mortality from the operation is not greater than from other capital operations. Agnew, in his work, gives a general summary of 171 cases, 139 recoveries and 32 deaths, or 18.72 per cent. Of the 171, 144 were by laparotomy, of which 117 recovered and 27 died, or 18.75 per cent. 27 were by elytrotomy, with 22 recoveries and 5 deaths, or 18.57 per cent.

You see, by this, the operation through the vagina gives the smaller death rates. But remembering the experience of Goodell, where he was obliged to do abdominal section after having made the incision in the vagina and found the ovaries beyond his reach, being bound down by adhesions. I concluded

it would be advisable to go through the abdominal walls. In this I had the concurrence of Drs. Cathcart & Mitchell, after taking into consideration all the chances of their being an adhesive inflammation.

After quite a number of delays, owing to her irregularity in menstruating and the irritable stomach, on April 29, 1882, assisted by Drs. Cathcart and Mitchell, and Mr. Burgett, medical student, I removed her ovaries by abdominal section.

I will not take your time in describing in detail this operation, suffice it to say: the ovaries were easily reached through a three inch incision; ligated them with carbolized silk ligature; closed the wound with silk worm gut ligature, and dressed with cabolic cerate and absorbent cotton, with flannel binding around the body. Used carbolic acid as an antiseptic. All sponges, instruments, ligatures and water used were all carbolized. Used ether as anæsthetic. She rallied well from the operation. Got union by first intention, and she got along for three weeks without an unfavorable symptom.

About this time she began to sit up, and circumstances over which we had no control compelled us to move her to another house, the sanitary surroundings of which were not the best. She sat up part of the time, and everything appeared to be swimming along nicely, when she took a violent chill. I expected to find some peritoneal trouble, or some inflammation caused by the operation, but could detect nothing of the kind.

Gave quinine in anti-periodic doses, but our old enemy, the stomach, refused to tolerate it. The chills returned every 24 hours, and the fever was constant. I soon became convinced I had a veritable case of malarial fever. I resorted to quinine hypodermically, but it was difficult to get enough into the system in this way to do any good without causing abscesses.

Finally I resorted to suppositories of quinine. This did well for a week or ten days, when the rectum rebelled.

But I rung the changes as best I could on these three modes, when, after a struggle of several weeks she gradually began to improve.

On trying to get out of bed she claimed she had no use of her right leg, and surely there was a certain degree of paralysis. I insisted on her getting around, had a pair of crutches made for her, and fairly forced her to use them. She improved rapidly, and I had ceased visiting her but occasionally, when I was

summoned again, and found her suffering from dysentary. This lasted for a couple of weeks, when it gradually subsided, but left her with external hæmorrhoids. These I laid open and pressed out the clot of blood, and I heard but little of them after that. From that time until the present, January, 1883, her improvement has been uninterrupted.

She is now capable of taking care of herself. Somewhat lame yet, but see no reason why she should not entirely recover. The bladder trouble still remains, but not so obstinate.

I am treating it with faradism with an insulated electrode in the urethra and bladder, and the positive pole in the inguinal region. She will pass her water for two or three days after each seance.

Results. She has had, several times, a slight bloody discharge, no pain with it. Hence, the dysmenorrhœa has never returned. Occasionally, when she gets very nervous, she will have a convulsion. But she does not have one now where she used to have fifty. All in all I consider the results highly gratifying, although we encountered obsticles we never dreamed of. But I believe the amount of good accomplished is worth to her all she has undergone, and she so expresses herself.

I am convinced she will continue to improve, and hope soon to get her in condition to urinate all the time, herself. But so many surprises have occured in the case that I shall not be surprised at anything that may yet occur. The case has been an interesting one all the way through, to me, and is one that puts a man to his wits' end, often, to meet the emergency.

Thinking that the many interesting points might elicit a discussion that would be interesting and beneficial is my excuse for reporting it.

At this date, April 11, 1883, the woman is comparatively well. She urinates nearly all the time herself. I have about ceased to use electricity. She comes to my office occasionall yet for it, more to relieve the pain in her lame leg, than anything else.

Sometimes she will have a slight uterine discharge of blood. Once quite freely while suffering from a severe cold.

Since preparing the above paper I have read what Lawson Tait has published in the *British Medical Journal.*

In that he contends that we are all mistaken about the organs that control menstruation.

We have all been taught that the ovaries presided over this function, but he claims the fallopian tubes are the organs that control menstruation, and proves it, to his satisfaction, by removing the tubes with the ovaries, and has no flux *at all* after it.

This would seem to be evidence conclusive, but we must remember that the greater number where the ovaries, only, are removed, have no discharge after it. We all admire the success and boldness of Tajt, but I must confess that I am not yet far enough progressed—excuse the term—to accept his theory of menstruation.

Somehow our native gynæcologists do not have the wonderful success of Tait. In his last thirty-five operations for the removal of ovaries and tubes he has not had a single death.

We feel proud of our eminent Battey, Thomas, Bozeman, and a score of other American operators, but none have arrived to his point of excellence.

Circumstances, of course, must be different. We live in progressive days, and we have no fears that our Yankee nation will be left very far behind.

Article LVIII.

Resection of the Right Superior Maxilla, the Pterygoid Process of the Sphenoid, of a Portion of the Body of the Sphenoid, and of the Vertical Plate of the Palate Bone.

By C. R. S. Curtis, M. D., Surgeon to St. Mary's Hospital, Quincy, Ill. [Reported for the Journal.] By M. Rooney, A. M., M. D., Professor of Principles and Practice of Surgery in the Quincy College of Medicine.

November 27, 1871. Ten days ago Andrew Persons presented himself at St. Mary's Hospital for examination and treatment.

A. P., æt twenty-five, sanguine temperament, weight one hundred and sixty, height five feet and eight inches, of good muscular development, a native of Sweden, has no evident cachexia, intelligent for his condition in life, a laborer. Upon examination there was found to be a tumor of the right superior maxilla, implicating the adjacent soft parts. The tumor was quite extensive, beginning anteriorly at the symphesis and extending to the zygomatic surface of the maxilla, involving the alveolar process of the maxillary bone, and the soft parts, to a considerable extent, back to the tuberosity of the maxilla, and filling the antrum highmorianum. How much more extensively the surrounding tissues were involved was not then exactly and definitely ascertained, though it was surmised that the morbid process had advanced to no slight degree in the neighboring regions.

Were it not for the presence of the tumor, the subject was apparently healthy, having a florid freckled complexion, sandy hair and blue eyes. He had always enjoyed excellent health, never has been tainted with venereal poison, nor, to his knowledge, have his ancestors transmitted to him any disease. He emigrated to this country three years ago. Has lived in several of the Western States, and, for a few months past, has lived near Macon City, Mo. The subject can assign no cause as to the origin of the tumor. About three months ago he was annoyed with pain and soreness of the right sup. maxilla. The molar

teeth in that jaw having become loose were extracted, which operation was followed by considerable hæmorrhage.

From the time at which the teeth were drawn the tumor has rapidly increased in size, and even since the subject's entrance into the hospital, ten days ago, the augmentation is evident.

That portion of the tumor involving the alveolar process seems to be somewhat movable, which motion is due, probably, to the increased vascularity and interstitial absorption of the inorganic elements of the bone.

The patient having been kept for several days on low diet, and the bowels being regular, no further constitutional treatment was premised.

After free consultation with many members of the profession, the patient was operated upon, November 27, 1871.

In the operation Dr. Curtis was assisted by some of the medical men of Quincy, Dr. Robbins, President of the Adams County Medical Society, being present.

Six ounces of whisky were first given to the patient; he was then placed upon the operating table, and chloroform was administered. The right superior middle incisor was extracted, then an incision was made from the right angle of the mouth to the center of the right zygomatic arch. This incision was then extended over the lower part of the malar bone and below the orbit toward the nose, about to the infra orbital foramen.

The flaps were then rapidly dissected up, exposing the tumor, masseter muscle (part of which was cut through), the ramus of the inferior maxilla, the malar bone and superior maxilla. The cutting forceps were now applied to the alveolar process, dividing at the point from which the mediam incisor had been extracted, cutting through the roof of the mouth along the corner to the junction of the right palatine bone. (Before this latter operation the soft parts within the mouth were incised in the usual mannor.) The forceps were then removed, the lower portion of the malar bone was separated, with the saw, from its upper, forceps were introduced, cutting through the maxilla in a line just below the orbit, from the nasal cavity to the pterygoid process, through the vertical plate of the palatine bone. The tumor was then seized with a strong pair of forceps and was easily depressed, when the remaining attachments of the soft tissues were severed with the scalpel, and the tumor was removed nearly *en masse*.

Some points of diseased bone at the base of the pterygoid process, and of the body of the sphenoid remained, which were cut away with the forceps and a considerable mass of unhealthy looking tissue was removed from the cheek over the site of the malar bone.

The incisions were followed by copious gushes of blood. The wound was sponged with alum water, and digital pressure was, temporarily, applied to the cut facial artery, and a little later to the internal maxillary. The hemorrhage having been diminished, no further attention, for the time, was paid to it. Some suspicious surfaces were cauterized with the actual cautery. About fifteen ligatures were applied to the facial and internal maxillary and their branches and other branches of the external carotid. Solution of persulphate iron was freely made use of after the operation.

The time consumed in the operation from the first incision to the removal of the tumor was but ten minutes. The wound was filled with lint saturated with alumn water. The flaps were brought together and kept in position with harelip pins and the interrupted suture. The parts were supported with adhesive plaster and bandages, and dressed with carbolized cold water dressing.

The patient lost about three pints of blood, but bore the operation well. After the completion of the operation Dr. Curtis gave the patient half a grain of morphia by the hypodermic syringe, and ordered whisky to be given to him in half ounce doses every hour. The patient was left at 2 P. M.; saw him again at 8 P. M.; he was then comfortable, reaction coming on; had slept some; ordered whisky to be given until reaction be complete; also carbolized water dressing to be continued.

Upon examing the entirety of the morbid material removed it was found to have involved the alveolar and palatine processes and pterygoid border of the maxilla, the vertical plate of the palate, the pterygoid process of the sphenoid down to the base, and including a small portion of the body of that bone. All were blended into a fungus mass of the cellular consistence, spongy and vascular, with but little bony inorganic matter remaining.

November —, 9 A. M.—Found the patient suffering from retention of urine. Drew off three pints of urine, when the patient felt much relieved. Complains of soreness of face and

throat. Pulse, 100 full and soft. Reaction complete. Ordered ℞. Olei Ricini ℥ i, to be given immediately. Continued whisky in small quantities, also broth and milk. 7 P. M. Oil has not operated, Pulse 96; complains of pain in the throat, considerable swelling of face; no hæmorrhage, has passed urine in small quantities three times. Condition satisfactory. Ordered Olei Ricini ℥ ii; to continue nurishment and cold applications.

Thursday, November. 9. A. M.—Patient quite comfortable; rested well last night. Pulse 90; swelling of the face about the same. Bowels moved four times since last visit. Patient is troubled occasionally with hacking cough, expectorating mucous sputa. Wound looks healthy, beginning to have some purulent discharge. But little pain, and patient is quite cheerful. Takes fluid nourishment quite freely. Ordered beef broth and milk and

℞. Vine antimonialis.....℥ ij.
Spiritus aetheris nitrici.....℥ i.
Aquae distillatæ.....℥ iij.
Morphiæ sulphatis.....grs. iv.
M. S. Coct. min. om. hora sumendum est.

9. P. M. Has slept several hours to-day; says he feels easy; considerable swelling of face; pulse 96, wound suppurating; continue treatment.

December 1.—Patient doing well; pulse 80, swelling of face diminishing; suppuration freely established. Removed lint from wound and thoroughly washed it out with ℞. Ferri per Sulp. Solutions, Acidi Carbolica, ää℥ij; Aquae Dest. Oij. External wound healing at several points by first intention; other points are suppurating. Patient feels more comfortable since the lint has been removed from the wound. Has sat up every day whilst his bed was being made; seems to have considerable strength; tongue clean, no secondary hæmorrhage has yet occurred; slept well last night. Suspend medicine and continue beef tea, egg nog and milk. Mouth and inner wound to be washed frequently with carbolized water, continue carbolized water as external dressing.

January 1, 1872. Patient has improved steadily. Reparation has proceeded well, and considerable osseous reproduction has taken place. No evidence of a return of the disease is manifested, and the patient leaves the hospital cured.

Translations.

Article LIX.

FROM THE FRENCH.

Excerpts from Late French Journals. [Translated for the Journal.] By S. Pollak, M. D., of St. Louis.

Cataleptic Condition of Muscles.—Brown Sequard says something similar to catalepsy can be produced in muscles, and in muscles only. It is difficult to assume that any part of the nervous system is the cause of it, for the phenomenon can be produced two hours after death, the destruction of the spinal cord does not modify it, it does even increase it. This cataleptic state is so clearly manifest, that there can be no doubt about it. Any member will maintain a position given in a state of rigidity; and this is not the cadaveric regidity, for that never changes.

Convulsive movements are often observed after death from cholera or yellow fever. Brown Sequard cites a case which he has witnessed. A man who died of cholera several hours since, brought his two hands together and raised both arms high up, and retained them there for some time. Convulsive movements of amputated limbs are frequently seen.

There is no doubt that the phenomenon has its seat in the periphery and not in the nerve centers. These facts lead to conclusions, that there exists in the muscles a condition strongly analogous to that designated as a cataleptic state and that the contractile tissues can possess a certain power of action more or less resembling that which is through the influence of the nervous system. The contractile system is therefore more allied to the nervous system than hitherto supposed.—[*Gaz. des Hôpitaux.*

Treatment of Warts.—With an ordinary pin transfix the wart at its base, but the point of the pin must not project, and the pin must nowhere touch the skin, which must be protected by some intervening substance—a piece of paper or wool. Heat the *head* of the pin with the light of a candle, and you will

literally cook the warty substance. If the heat should be too great, withdraw for a moment the light. In about ten or fifteen minutes the cooking of the wart will be complete. It will turn white and crevice in every direction and will be surrounded with a red halo. The whole wart can then be lifted out with the pin. It will leave a circular superficial cicatrix.—[*Journal de Med.*

Electrolysis is quicker, less painful and more efficient.—S. P.

GLYCOSURIA IN MAMMARY ABSCESSES OF NURSING WOMAN.—It was formerly held that glycosuria is present with all pregnant and nursing women; but this is only true of women in the puerperal state who happen to lose suddenly their milk, which according to Verneuil, is always the case with those who suffer from mammary abscess. Dr. Vasher makes very interesting experiments which demonstrate that, at the advent of a mammary abscess, nursing is genarally discontinued, yet the flow of lactal fluid to the breast is the same, an absorption of milk sugar takes place, which is again excreted with the urine. But this is really not *glycose* which is found in the urine, it is *lactose*. That this lactosury has its origin in the resorption of breast milk, is proven by its sudden disappearance in milking animals, from whom he amputated the lactal glands.

Glycosury whenever found, is of very serious import, and no surgical operation should be performed on breasts from which the milk has not entirely disappeared. Verneuil thinks that diffuse inflammation, suppuration and even sphacelus is apt to follow all surgical interference at that epoch.—[*France Medicale.*

SPLENIC COUGH, HEPATIC COUGH.—Prof. Trastour, of Nantes, publishes an interesting study in the *Revue de Medicine*, Jan., 1883, on cough of splenic or hepatic origin. The reflex action of abdominal organs upon the heart, the lungs and the brain are well known; also cardiac troubles of stomachic, hepatic or intestinal origin. Gastric coughs have been described by writers on chlorosis, hysteria or dyspepsia. A practiced ear will never mistake the nervous, spasmodic character of a spleno-hepatic cough, which is usually without expectoration, hoarse more or less frequent and sharp. It comes, as a rule, after eating, or on palpation or percussion of spleen or liver. If accompanied with fever, this cough is most annoying during the chill. In all such

cases, the spleen or liver have been found enlarged, either from paludal influences or dyspeptic troubles.

This cough has generally nothing disquieting about it, but if joined with palor, loss of flesh, anorexy, general weakness, shortness of breath, and a cachectic appearance, if found in a valetudinarian, or in age of adolescence, then it assumes a grave character. Pulmonary disease is *suspected*, but a critical examination of the thoracic organs *finds their integrity unimpaired*, and the converse is the case with the spleen and liver, which are hypertrophied and painful to the touch. The prognosis is more favorable and generally amenable to treatment—chiefly to feruginous tonics.

Prof. Trastour concludes:

1. We must clinically admit a splenic cough, a hepatic cough as well as a gastric cough.

2. We must in the presence of concomitant cachectic symptoms assure ourselves of the integrity of the lungs and pleura, prove the condition of the liver and spleen, which, if found engorged, may with suitable treatment, terminate in entire recovery.

The cough is *not* brought about by an irritation of the pneumogastric nerve. Morel, Arloing and Franck have seen the airioles of the lungs to contract on an irritation of the spleen, liver, stomach and intestines; they have demonstrated by numerous experiments, that the reflex action is brought about by the *sympathetic* and not the *vagus*. The treatment of the engorged liver or spleen, consists chiefly of quinine, revulsives, and the wearing of a broad light belt around the hypochondriac region for some time after convalescence.

Article LX.

FROM THE GERMAN.

Excerpts from Late French Journals. [Translated for the Journal.] By S. Pollak, M. D., of St. Louis.

Boric Acid.—In two cases of vaginitis of little girls, the boric acid was used with prompt, good effect. In nineteen cases of *erosion* of the *portio* with moderate cervical catarrh, was bor. glycerin (10-100) used with good result; in eight others the insufflation of the dry boric acid. Absorbent cotton dipped in boric acid is much used in vulvar catarrh. Also in *ozæna* with atrophy of the mucous membrane is bor. glycerin much used. Five cases of *pharyngitis* with retro vasal catarrh were quickly relieved by insufflation of boric acid.—(*Med. Zeitung.*)

Subcutanetus Injection of Carbolic Acid.—In three cases of muscular rheumatism, ten injections were made ($\frac{2}{100}$) around the shoulder; in one hour pains subsided, after the sixth, patient was entirely free of pain and remained so.

A lady who had suffered long from ischias of the right leg, who had used massage, had the nerve stretched by Billroth, without relief. Carbolic acid was injected, 12–20 daily, later 30 a day and lastly, 40 a day and was entirely and permanently relieved. The needle must be inserted vertically, that the fluid may permiate the muscular tissue. Carboltoxæmia was never seen to occur; urine remained clear.—[*Ibid.*

A Congenital Total Absence of Both Eyes.—Dr. Peterson, of Petersburg, reports having a congenital total absence of both eyes. The child was two weeks old. The form of the lids was normal; on separating them there was no trace of an eye to be seen. The conjunctiva bulbi presented two (six-millimetre) deep depressions. The child was otherwise well formed, it developed rapidly and grew finely.—[*Ibid.*

Blinding of the Retina by the Direct Light of the Sun.—

Dr. Plehn had an opportunity of examining four cases of the above disease, after the eclipse of the sun, May 17, 1882, brought on by indirect inspection of the sun through insufficiently tinted glasses. With all four, the acuity of vision was lessened ($\frac{10}{10}$-$\frac{10}{10}$) exhibiting also a very small positive skotoma centralis. The ophthalmoscope revealed a small white spot on the macula lutea, surrounded by a red halo. This white spot is regarded as the cause of the skotoma; it is probably caused by the coagulation of the retinal albumen, by the concentrated direct rays of the sun. This hypothesis has been verified by experiments on animals, by Czerny; he blinded the retina of rabbits and examined them afterwards with the ophthalmoscope and the microscope.—[*Arch. v. Græfe's.*

ACUTE CONJUNCTIVITIS CAUSED BY ELECTRIC LIGHT.—A workman engaged in putting up Siemen's lamps, had a violent conjunctivitis which lasted eight days. It is not certain whether this inflammation was caused by the *heat* or *light* rays. All operatives complained of being dazed.—[*Opthalmic Review.*

CATARACT AND OTHER EYE TROUBLES CAUSED BY A STROKE OF LIGHTNING.—Laborin (*Græfe's Arch.*) gives an exhaustive account of an operation for cataract, performed by him, which was caused by lightning. It was that of a sea captian who stood at the helm during a thunder storm. He lay unconscious for three hours and was more or less paralyzed on coming to. The paralysis and anæsthesia of the limbs soon passed away. But cataracts developed in both eyes, quickest in that directly touched. There was also mydriasis and paralysis of accommodation. Atrophy of optic papilla finally advened.

NECROLOGICAL.—*Louis Auguste Desmarres*, the illustrious French oculist who, for nearly twelve years has withdrawn from all practical work, died at his country seat at Neuilly, August, 12, 1882. He is so well known in the United States, having been the favorite teacher of many American oculists, that a brief sketch of his life may be accepted. Desmarres was born in Everaux the 12th of Sept., 1810. His wealthy parents gave him a good education in the College of Evereux. A reverse of fortune compelled young Desmarres to earn his bread by the most menial work. At the age of twenty, he was employed in the

forrestry of the government at $240 a years; he earned something besides, by giving instructions in aquarelle painting. But his aspirations were greater. To study medicine was his object and aim. In July, 1839, he received the degree of M. D. He frequented largely the only Eye Clinic of Paris, of Dr. J. Sichel, which had attained the fame of being the greatest eye clinic extent, both for numbers of patients in attendance, and successful works.

Sichel appreciated Desmarres' assiduity and talent, and soon made him his *chéf de clinique*, a position which he held four years. In 1844 Desmarres opened a clinic of his own. He became not only the rival but the opponent of his late teacher, and an apostate of the Vienna School.

If, two hundred years hence, the question would be asked, "Who were the greatest oculists of France in the nineteenth century?" in vain would one search the annals of the French medical faculty, in vain in the library of the Academy of Medicine of France. Not even the name of the well-known and never-to-be-forgotton Desmarres will be found. But by reading the biography of the immortal A. von Græfe, his grateful pupil, there a true sketch of Desmarres will be found in the shape of a letter written by von Græfe, while in attendance in Desmarres' Clinique, as a pupil, to a friend in Berlin. It is thus:

"The clinical material is less than atSichel. There are daily about ten new, and eighty old cases. But his lectures are more interesting, and his ideas and system of teaching, new and instructive. Lately only the pupil, now the rival and opponent of Sichel. An apostate of the school of Beer, of Vienna, he takes away the esoterical condition of the eye, ignores the sensitiveness and almost sanctity of the eye, and handles it with boldness, rudeness and roughness. He considers himself the originator of topical oculistic surgery; cauterization, scarification, paracentasation are great factors in his treatment, and really with surprising results. He hoots the idea of a specific ophthalmia. He considers precautions after operations as needless. He makes ten and twelve artificial pupils a week in his policlinic, and lets patients go home immediately. An incredible number of operations are daily performed, never less than three or four. His centrifugal rent is a beautiful performance. He has great manual dexterity; eversion of lids, cathederizing the lachrymal duct, is done with a rapidity of a prestidigitator. Much can be learned from his

peculiar method of dealing with eyes, which for daring and audacity is nowhere equaled. His clinic is comfortably arranged. The pupils are required to make the diagnosis and perform all minor operations, a privilege which is enjoyed nowhere else, an advantage which can never be overestimated."

In 1863 Desmarres' clinic was the largest on the continent, and he the most busy oculist in Paris. Then all at once he retired from the active pursuit of his profession, closed his brilliant career, and installed his son into the most lucrative professional business in Paris. He married again, the second time, 28th of May, 1863, returned to his country seat at Neuilly, without ever recrossing the threshold of his clinic at Rue Hautefeuille, where he had achieved fame and greatness. (*Klin. Monatsbl. Augenheilkunde.*)

Desmarres was an incomparable artist in ophthalmic surgergy, but he was not an oculist in the present sense and demand of the world. Diseases of accommodation and refraction were never enquired into; with the exception of the ophthalmoscopé, there were no optical appliances seen at his clinic. Neither were patients exhibited, on whom operations had been performed, so that the ultimate result of many operations remained unknown. His physiology and pathology of the eye was curious and not endorsed by any of his numerous visitors. [Translator's remarks.]

EXPERIMENTAL EXAMINATION ABOUT THE DECUSSATION OF THE FIBRES OF THE OPTIC NERVE IN THE CHIASMA, BY DR. BECHTEREN, OF ST. PETERSBURG.—The assertions of Biciadecki, Mandelstam and Michel, that there is a *complete* decussation of the fibres of the optic nerve in the chiasma, are now based upon pure *anatomical* demonstrations, but are at variance with the results of *histological* experiments made by Gudden, on the chiasma of the higher vertebrata, which show *incomplete* decussation.

The decision of this important question can only be reached by *experimental physiology* as will be seen by the following:

1. After division of the optic nerve, blindness of the operated eye, dilation of the pupil, and immobility of the same on the admission of light, ensued. But when light is admitted into the sound eye, the pupil of the eye with the divided nerve, will immediately contract so that when both eyes are open, no difference in the size of the pupils will be perceived. On closing the sound eye,

instantly the pupil of the operated eye will dilate to its maximum and again become normal, when both eyes open.

2. After division of the chiasma nervorum opticum in the sagital direction, neither eye will become perfectly blind. The pupils do not dilate and they respond to light.

3. After division of one of the tracts of the optic nerve, complete blindness of neither eye ensues, but if either eye is covered or closed, difficulties of vision set in, which are always in the direction of the uninjured eye.

Hence, it results that in an animal with a divided tract of the optic nerve, an homonymous limitation of the field of vision of both eyes, exists in the opposite site of the divided nerve.

These results are decidedly in favor of an *incomplete* decussasion of the nerve fibres in the chiasma of dogs.—[*Neurol. Centralbl.*

Clinical Lecture.

Article LXI.

Extracts of Clinical Lectures Delivered by Edw. Borck, A. M., M. D., Prof. of Surgical Diseases of Children, and Clinical Surgery, College for Medical Practitioners of St. Louis, Mo. [Reported for the Journal by H. Marks, M. D., of St. Louis, Mo.]

Gentlemen: Having already studied together the various fractures and dislocations of the upper extremities that we may meet with in our daily practice, and having examined the symptoms by which they are to be recognized, and having pointed out to you, especially the points of differential diagnosis between the various injuries of bony the parts, and particularly demonstrated to you their treatment by the simplest appliances, as I am in the habit of using. Permit me to call your attention once more to the importance of bearing in mind the age of the patient and the necessity of studying the development of the bones.

Remember the cases I presented to you of the two little girls: the one with a fracture of the wrist, the other who only sustained a separation of the epiphesis. And how easy it is that by not observing correctly, one may thereby injure his patient and his reputation. Let me therefore repeat, that in separation of the epiphesis, the bony projections are not very distinct, but can be felt as two smooth tumors. That the displacement occurs above the styloid processes of the radius and ulna. That the tendons are relaxed upon both surfaces of the forearm. That the bones of the forearm are shortened, measuring from the condyles at the elbow to styloid processes. And that the styloid processes are not prominent, but are normal in their relation to the carpus; that there is absence of crepitus. But it matters not how well one would remember all these symptoms and how well one may know them by heart; if he does not educate his fingers, if he does not know the shape and size of a bone, if he is not thoroughly acquainted with all its elevations and depressions and

has not learned by practice how to distinguish them by the touch, and to recognize the same and know at once whether they are in the right or wrong place, he will be likely to make mistakes. It is not enough when you see this bone, that you can tell it is the humerus; but you should know all about it. However, for practical purposes it amounts to the same thing whether you would call this elevation the greater tuberosity, or call it a mountain; or this depresson, instead of olecranon, an abyss.

But it does not amount to the same thing if you don't know that these elevations and depressions are there, if you don't know where to find them and where they ought to be. For the surgeon it is absolutely necessary to study all parts of the body in the the normal position.

If you are called upon to see a case of fracture or dislocation, do not examine for either one, they may both be very obscure; examine for a healthy normal limb, and if then instead of normal you find some abnormality, then decide what that abnormality can be. Only by practice can you gain dexterity; if you have no one to practice upon, practice upon your own limbs.

Now let us see what we do remember of the inflammatory and exudative swelling of the shoulder joint. And as I speak to medical practitioners who have had years' of experience, and not to medical students, I may begin at once with the practical points.

The main question that comes up when a patient presents himself to us with an inflammation of any joint, is, first of all, is this inflammation intra or extra articular?

The importance of this question as well as the importance of a correct diagnosis, is obvious to every one of us. The tissues around the shoulder joint, are very numerous in comparison to other joints. And we seldom meet with a single independent muscular abscess in this region. And as the capsule of this joint is covered almost everywhere with muscles, therefore cannot this structure be the cause of an inflammation that produces a peri-articular abscess.

But we have synovial sacs between the muscles and the capsule. And it is either the one or the other of these synovial sacs, or the cellular tissue between the muscles and the capsule, that will produce a true peri-synovial abscess, if in that structure suppuration should occur.

Here we have the subdeltoid, the subacromial and the subscapular bursæ, and numerous smaller bursæe.

Inflammation of these bursæ occur very often and we meet with acute and chronic serous exudates and suppurative metastasis.

Now if a bursæ is inflamed and does not communicate with the joint, we have swelling only in a certain circumscribed region. While if there is an exudate or fluid within the cavity of the joint, the swelling will be equally distended in all directions.

Viz.: An exudation in the bursæ subdeltoida, will only elevate the deltoid muscle. An exudation in the bursæ sub-acrominalis produces a small swelling under the acromion process. An exudation of the bursæ subscapularis, "providing it does not communicate with the joint," will produce a swelling in the axilla.

Now what I wish to call your attention to is this: That we might suppose and reason that an exudate or fluid within the capsule, would produce the largest swelling of the shoulder, on account of the large space to be filled; but it is not so, an exudation in the subdeltoid bursæ will produce the appearance of a larger swelling of the shoulder; on account of the accumulation of the fluid in the bursæ, the deltoid is lifted up from the capsule.

If there is fluid within the capsule, the deltoid is not lifted up, is not arched, the strong ligaments prevent that. The capsule gives away the easiest behind, and here it is, under the spine of the scapula upon the posterior side where the fluctuation can be felt most distinct. Do not be mislead to diagnose at once, by a swelling of the shoulder over the deltoid, an inflammation of the joint.

This has to be done by other symptoms. And by what symptoms can we make a certain diagnosis of inflammation of the joints themselves? Well it is this: By the fixation of the joint, just as in inflammation of the hip joint, the pelvis and the thigh must be kept in a positive and relative position, so here; with the humerus and the scapula, they must be fixed in positive positions to one another. As we say in hip disease, the pelvis moves with the femur: we say in shoulder joint disease, the scapula moves with the humerus.

[TO BE CONTINUED.]

Proceedings of Medical Societies.

Article LXII.

ST. LOUIS MEDICAL SOCIETY.

Taken by the Journal's Stenographic Reporter.

Saturday, March 31st, 1883.

Case of Rupture of the Ileum without lesion of the Abdominal Parietes. By Dr. F. J. Lutz.

It cannot be conceived how any serious injury can be inflicted upon the abdominal walls, without involving some of the contents of the cavity. On the other hand it is well established that the most fatal lesions of the abdominal viscera may occur as the result of direct violence without any appreciable external wound. The annals of surgery contain the records of the rupture of the spleen, liver, stomach, etc., without lesions of the parietes. Some of you will remember that in May, 1878, I reported to this society a case of rupture of the jejunum caused by a heavy piece of coal falling upon the abdomen, in which there was no external wound, and the specimen before you is another illustration of rupture of an intestine, the ileum, from direct violence without any appreciable lesion to the walls of the abdomen.

The young man from whom this specimen is taken was nineteen years old and a laborer in a lumber yard. He was so unfortunate as to be caught under quite a number of boards, which struck him in the abdomen. This occurred on the 24th of this month and I saw him the next day, about twenty-four hours after the occurrence of the accident. His pulse was quick and feeble, his countenance pale and pinched; he vomited incessantly greenish, foul smelling liquid, complained of unquenchable thirst and great pain in the abdomen. His respiration was superficial, quick and labored, his abdomen very tympanitic and his extremities cold, whilst he complained of great pain, especially in the right ileo-cæcal region, which was much increased by pressure, yet it was found that the entire abdomen was painful on percussion. There was not even an abrasion of the skin; no fracture

of the pelvis; he had passed his urine several times and emptied his bowels once since he was hurt.

The patient was so evidently moribund that palliative treatment only was instituted, consisting of the hypodermic injection of morphia, and he died about six hours after I first saw him.

The results of the post-mortem examination, which I made on the following day, may be briefly summarised as follows: There were a few abrasions of the skin of the lumbar region. On making an incision from about six inches above to about three inches below Poupart's ligament on the right side in a diagonal direction, some extravasated blood was found in the subcutaneous cellular tissue. On opening the abdominal cavity through this incision and increasing the field by a second incision made at a right angle to the first, the intestines situated in the ileo-cæcal region were found to be firmly adherent to each other by exudated material, and on severing this connection between the different coils a rent was discovered in the ileum about four inches above its junction with the cæcum. As you will see by examining the specimen, the entire circumference of the bowel is involved in the tear. The cavity of the pelvis was filled by the contents of the intestines which had escaped through the opening. The entire parietal and visceral layer of the peritoneum, gave evidences of recent inflammation, but there was no injury to any of the other viscera.

The intestine must have been caught between the weight and brim of the pelvis during the accident, and torn.

The treatment of such a case as this, if seen at the very outset, basing the prognosis upon a rational interpretation of the symptoms, should consist in a free incision and reunion of the bowel.

DR. ATWOOD.—In reference to the specimen exhibited by Dr. Lutz, I will say that I saw a case, not of rupture of any abdominal viscus but of fracture from external violence without a rupture of the skin. I have seen cases of rupture from external violence without fracture of the wall of the abdomen, but this was not one of that character. While I was in the army, a captain, in battle at Fort Scott, attempted to dodge an almost spent cannon ball, which struck him about the junction of the middle and lower third of the tibia and produced a slight abrasion yet fractured both tibia and fibula; it was a somewhat similar case.

Dr. Stevens.— I have never witnessed a case exactly of that kind, but I attended a case where there was a rupture of the bladder without any external injury. This accident was the result of a coal miner attempting to lift the axle of his wagon. The wheel came off and he attempted to raise the axle to put the wheel on by himself, and ruptured his bladder so that the urine was extravasated into the cellular tissue, and he died as a consequence of it. There was no external injury at all.

Dr. Pollak.—Old Dr. Baumgarten died from a fall over the dashboard of his buggy. He was trying to rein in his horse when he fell over the dashboard and ruptured the bladder. There was no external injury at all. He died from extravasation of urine.

Dr. Love.—I wish to report a case that was recalled to my mind by the remark of a member two or three meetings ago regarding the hæmorrhagic diathesis and its relation to malaria. Some time ago a gentleman sent for me. He had had a tooth pulled, it was the last molar in the upper jaw. The first time I saw him was in a distant town, and knowing that I was there he consulted me there for a hæmorrhage from the tooth cavity. He told me that the tooth had been pulled the day before in St. Louis, by a prominent dentist, who checked the hæmorrhage at the time with the usual styptics, but it began oozing that evening after he got on the train to leave the city, and so continued during the night and after arriving at the town where he then was, the bleeding became quite profuse and disturbed him, so that he consulted me. I applied a piece of absorbent cotton saturated with tannin over it and held it in position with some chewing gum. I remained there until the next day and there was no further trouble during that time. I returned home and shortly afterwards he also returned. He then sent for me in the evening at about eleven o'clock. He said that it had been oozing freely again, and when I saw him it was welling up, the flow of blood was formidable. I happened to have a bottle of chromic acid in my pocket, and I applied a small quantity. I was afraid to apply very much for fear of producing a great amount of sloughing of the gum and the tissue round about. I feared it somewhat, as one cannot always control the action of chromic acid. It acted very nicely but in the evening of the next day I was sent for again, and I sawhim probably a dozen times the next day. I applied vari-

ous styptics without producing any permanent result, and finally concluded to apply pressure. I made a compress of punk such as dentists use, which is of itself a styptic, and placed it over the bleeding point, and then made a mechanical contrivance by which means as much pressure on the bleeding point could be made as was desired. This controlled the hæmorrhage for a time, but after a few hours it became loose in consequence perhaps of the receding of the mucous membrane of the gum. I released the pressure and the oozing again commenced. That apparatus was applied three or four times I suppose, and I finally took the patient to my own house where I could have him constantly near me, and for two nights I tried to stop the blooding, but it continued in this way for four or five days when I called a consultation, appreciating the fact that the condition of the man was becoming serious as he was now greatly reduced. Dr. Hodgen saw the man, and also Dr. Mudd, I think. The result of the consultation was, that various methods of treatment were suggested. The white hot iron was discussed, and it was also suggested that a small quantity of chromic acid should be used. Dr. Mudd favored a larger amount, that it be used freely, with enough water to render the acid liquid. It was applied thoroughly and after its application there was no more hæmorrhage. I watched the eschar very closely, but it adhered firmly. We gave tonics and nourishment to make up for the loss of blood; it having become so watery that I feared the patient would die from exhaustion. At the end of three weeks the eschar loosened and came away, and the surface beneath was entirely healed. I think the eschar from chromic acid is more firmly attached to the surface beneath it than is any other eschar. It clings longer and for that reason, in a case of hæmorrhage it is the most valuable, because it forms a stopper to the bleeding vessels. In capillary hæmorrhages I will make henceforth at the very outset a thorough cauterization of the part with chromic acid. With regard to the case, it is evident that there was a hæmorrhagic diathesis dependant upon a depraved condition of the system. He had had an attack of malaria and his digestion was not good. Under the use of tonics etc., he soon regained his health, and since then, although with great trepidation, has had one or two teeth removed without any serious result. They almost dropped out. In each case there was a bleeding surface but the vessels contracted and no hæmorrhage of any consequence resulted. Now if I had not

been able to follow this case up afterwards it might have been put down as a case in which there was a tendency towards hæmorrhage. I will say as regards his previous history, that he had had during his life several such experiences, when every little wound would be followed by hæmorrhage, too profuse for the character of the hurt. And I think many of the so-called hæmorrhagic diatheses are explainable in this way. I don't know that the case is particularly unique, but I must say it was most interesting to me during the time it was in progress, and it has given me wonderful faith in chromic acid for the relief or checking of hæmorrhage.

Dr. Watkins.—I would like to ask the docter if quinine was administered to the patient during the continuance of this hæmorrhage.?

Dr. Love.—Yes, sir; in large quantities. The therapeutic measures were all thoroughly considered and administered.

Dr. Pollak.—I ask, that I may be permitted to add a few cases of Hæmatophilia, which occurred in the early days of my practice in this city.

1. A child, about one year old, was suffering from difficult dentition, which caused convulsions frequently. It was thought that scarification of the much swollen and painful gums, would arrest the convulsions, and accelerate the protrusion of the teeth. I was not disappointed in this expectation, the convulsions never recurred after two or three incisions into the gums. But small persistant bleeding ensued from this trivial operation, which resisted every remedy hitherto known. Mechanical appliances, styptics, even the actual cautery were tried, but all in vain. Drop by drop blood would filter through dressing and eschars, until the child became entirely exsanguinated, and it succumbed in six weeks. I had the aid of my friend the late Dr. Pope and other noted practitioners of medicine and surgery, but all to no purpose.

2. A little while after, I met with a case of bleeding from the umbilicus in an infant of three days old, after the cord had became detached. Dr. Pope and other surgeons were co-attendents in this case. Hæmostatics of all kind, ligation of the umbilical artery, were tried but all in vain, the child died in three days from the loss of blood. This was a very trying case, as it was an only and long hopéd for offspring, of a well-to-do family.

3. Another case occured more recently. It was that of a lad, aged thirteen. Who was stung by a bee over the eyelid, causing a traumatic erysiplas and ultimately entire sloughing of the integuments of the lid. With the subsidence of the inflammation and the ensuing cicatrization, an ectropium was the inevitable consequence. The free tarsal margin of the lid became adherent to the brow, and thus two-thirds of the eyeball remained uncovered, and exposed to atmospheric influences, and to foreign bodies floating in the air, besides creating a most hidious deformity. A plastic operation was decided upon, and very successfully performed. The flap was taken from the forehead and secured by fifteen fine sutures. No bleeding worth nothing occurred during this tidious and delicate operation. Bandage and proper dressing were applied, and the patient left in a very satisfactory condition. In my visit a few hours later, I noticed the bandage stained with blood, I quickly removed the dressing, and to my great chagrin, I found the flap raised from its well adapted position, blood oozing freely from between the sutures, which at last gave way entirely owing to the presure of a large coagulum, which had formed under the flap. The flap had to be sacrificed, in order to stop the bleeding. The operation was a failure. I have since learned, that the boy had a hæmorrhagic diathesis, which has manifested itself in various other forms.

4. A fourth case came under my observation, during the war. It was that of the late Major Maline, Advocate General on the staff of Maj. Gen. John Pope. He was about forty-five years of age, of splendid physique, of good family record, of active and regular habits, and perfectly temperate, of pallid complexion, but sound to the core in every way, never complaining, with the exception of occasional moderate epistaxis. One night the epitaxis was very excessive and absolutely alarming. Ergot internally as well as subcutaneously remained without effect. Mineral acids, ice, tampons steeped in Monse's solution proved worthless. A large quantity of blood must have found the way into the stomach, for the evacuations from the bowels contained large coagula. Stimulants and tonics had to be given to meet the threatening inanition. It gradually stopped I presume from absolute exsanguination. By order of the Medical director, he was put on board a steamer for the Missouri. As soon as he reached the plains, he mounted a horse, and kept in the

saddle until he reached Santa Fe. New Mexico, much improved in health and strength. His book, "1000 Miles, or six months in the saddle" is a pleasant reminescence of his convalescence and ultimate entire recovery, from an apparently pernicious disease.

Dr. Meisenbach.—This is an interesting subject and I will relate a case of epistaxis that occurred in a lady seventy years of age, who came under my notice last fall. I was called in consultation in regard to her condition. She was bleeding very rapidly. I used internally the fluid extract of ergot and other means; I applied pressure over the articulation of the lower jaw, trying to depress the internal maxillary artery. The bleeding in two hours ceased. I had the pressure kept up for a number of hours, and I think in this case it did good. Whether this assumption is correct or not I am not able to state, not having tried it in any other case. I mention the fact, as some one may have had a similar experience.

Dr. Laidley.—I reported, some three years ago, a case which came under my observation; it was seen by Dr. Hodgen and Dr. Gregory, being a somewhat remarkable one. The patient was a little girl eight years of age, and part of the family history was that the mother was found dead one morning, no one knowing what time she died and the cause of death being also unknown. This child was taken with repeated hæmorrhages. Several days would elapse and then there would be bleeding from the nostrils, and underneath the skin there would be ecchymotic spots, probably two inches across in their largest diameter. This was observed over many parts of the body. The eye was examined and it was found that there was a clot of blood in it. While the patient was under my care, for two or three weeks probably, this ecchymotic condition showed at its greatest advantage in coloring; after four or five days it began to decline, and in the course of two or three weeks it had entirely disappeared. The remedies which were used were the preparations of iron etc., to control the general hæmorrhage, and cold applications to the nostrils or plugging them, but still the child continued to bleed for a time. I don't know what remedies caused it, or whether it was simply the work of nature, but the bleeding finally stopped and the child gradually grew strong as usual. Some months after this it commenced again, and coming under my care, I requested Dr. Hodgen to see

the case with me. I don't know but that Dr. Love saw the case also. At any rate Dr. Hodgen recommended that the child should eat sour kraut and lemons as a preventive. At any rate the remedy acted splendidly, as the child went longer without the trouble than it had ever gone before. What the rationale of the treatment was, I am not able to say, but the remedy was given and seemed to have the desired effect.

DR. ATWOOD.—That must have been a scurvy. The child was of scorbutic diathesis.

DR. HURT.—I was very much interested in the case reported by Dr. Love, and I am free to say that I was interested not only from the results of the application of the remedy, but in the theory of the therapeutic action of the remedy. I think it was a very appropriate remedy—the chromic acid; but I was a little surprised to hear the Doctor affirm that he would never attempt to treat a case of the kind with any other remedy, for the reason that I have no doubt but what Dr. Love has often treated cases successfully with other remedies, what would be materially less potent in their effect upon the tissue. I remember a case of hæmorrhage after the extraction of a tooth, which was quite severe. At the time I saw the case the bleeding had been going on for some six or eight hours and seemed quite copious. It was successfully arrested with alum, after the failure of persulphate of iron. The alveolar cavity was filled with it and the hæmorrhage ceased immediately, and there was no further trouble with it. In regard to the case reported by Dr. Pollak, it occurred to me that the treatment in the case which ultimately proved successful, was not perhaps thoroughly understood; and I must confess I don't just exactly understand the philosophy of it myself. The atmospheric pressure in a high altitude is less upon the body and upon the arterial circulation than it is in a lower altitude, and I cannot quite understand the philosophy of the success of the treatment—the treatment in this case of sending a man into a lighter air—into a lighter atmosphere. Still, of course, as it proved successful, we would like to be possessed of the knowledge of why it was so. It seems to me that he might have ridden in any other direction just as well. The subject of hæmorrhage is a very interesting one, and especially the question of the hæmorrhagic diathesis; and probably the most interesting hæmorrhages in this condition is hæmorrhage from the uterus, in a case

where there is a diathetic tendency to hæmorrhage; and we are as apt to find a diathesis developed at this point as at any other, perhaps more likely. Not very long ago I was called to a case of hæmorrhage from the uterus, the patient stating that she had been bleeding for about three weeks. She was blanched in her appearance, and was losing blood then in just a moderate amount. I didn't just exactly understand the history of the case, or the character of the patient, and I had my suspicions aroused that perhaps an abortion had been performed. I was anxious to satisfy myself as to the cause of the hæmorrhage, but I could not do so. I examined the womb and found it slightly enlarged and soft under the touch. The cervix was sufficiently open to admit a probe with a considerable amount of cotton wrapped around it. I could not satisfy myself that an abortion had been produced and I attempted to arrest the hæmorrhage by internal treatment and resorted to the use of two parts of the fluid extract of ergot and one of the tincture of digitalis; directing a teaspoonful to be taken at a dose, at the same time I ventured to inject the uterus with hot vinegar, as hot as it was possible for the patient to bear it without being scalded. This seemed temporarily to control the hæmorrhage, not entirely, for it began pretty soon to return. I kept her under the influence of ergot and digitalis. I then attempted to inject the uterus with a weak solution of chromic acid, probably I made it too weak. Injecting the uterus, as you are aware, in this condition without a well dilated cervix, is a hazardous practice, but I succeeded in throwing a few drops, as I supposed, into the body of the uterus, and almost instantly the patient complained of intense pain. In order to control the pain I gave her a hypodermic injection of morphia as soon as I could, and as she seemed to be going into a state of collapse I gave her some whisky also. She recovered from the depression or shock and there was a temporary arrest of the hæmorrhage; but when I saw her again on the next day, she was still bleeding, but slowly. I then made an application of the persulphate of iron on a probe, the probe being wrapped with a little cotton. I passed it into the uterine cavity and turned the probe gently from side to side, so that I would sweep the entire surface of the cavity as near as possible. She again immediately exhibited symptoms of collapse, and I was again compelled to resort to hypodermic injection of morphia. After this I resorted to such remedies as would relieve any obstruction of the bowels, and as

much as possible relieve the tardiness of the venous circulation in the liver, and the hæmorrhage ceased and she recovered.

DR. POLLAK.—How much chromic acid did you use?

DR. HURT.—I used about a 20 per cent. solution of chromic acid in water, and diluted it, perhaps one-half, injecting probably eight or ten drops into the uterus, and such were the symptoms following it that I became alarmed, and supposing that I could make the application upon the probe with better success, I attempted that, but unfortunately I was no more successful so far as the production of shock was concerned. The shock was very profound, so much so that I resolved not to repeat the practice again.

DR. LOVE.—I simply wish to refer to the remarks or rather the criticism of Dr. Hurt, regarding the use of chromic acid in cases of hæmorrhage. The Doctor certainly misunderstood me. I said or meant to say that I would use it in all cases which demanded it—in all formidable cases. I most assuredly think that where there is a bleeding surface that can be seen, where it is within reach, where the application can be made as desired, that chromic acid is not a formidable agent. I use a saturated solution, just enough water to produce deliquescence. I think it is one of the most efficient caustics we have, and if properly applied, is more apt to leave a sound surface beneath the eschar than any caustic we can use. Probably the reason for this is that the chromic acid produces an eschar which keeps the air completely from the surface beneath, thus enabling the healing process to go on without interruption. I must certainly say that I would not use chromic acid of any strength, as an injection into the womb.

DR. MOORE.—Two cases of epistaxis in my practice, and another of uterine hæmorrhage, about such as Dr. Hurt relates, was relieved, not in an hour or a half an hour, but in five minutes, by a remedy that I am surprised has been overlooked—the hypodermic injection of ergotine. In a case of epistaxis in a patient of, I think, hæmorrhagic diathesis, certainly an anemic, nervous woman, the hypodermic injection of two grains of ergotine stopped the hæmorrhage in three minutes and it did not return. I gave a little morphine afterwards. In the practice of a friend was a case which he detailed to me a short time ago,

somewhat such as Dr. Hurt reported of uterine hæmorrhage. A similar injection of ergotine stopped the hæmorrhage within a few moments. I certainly think that the hypodermic use of ergotine is by far the most preferable way of getting its hæmastatic power to work. The effect of this remedy in these cases was almost instantaneous, and is was permanent. In this connection, although we have full reports on these subjects, I want to report two cases of profuse sweating. One in a man forty years of age, who came to me with the statement that he was in perfect health with the exception that he had night sweats every night without exception, and to such an extent that he would saturate his night clothing. This had been going on for two years. After trying quinine in full doses, twenty grains at bedtime, and sulphuric acid, atropia and other remedies, I suggested a dessertspoonful of fluid extract of ergot about half an hour before bed-time. He told me that after the second dose he never had any more night sweats. Three weeks more elapsed and there has not been the slightest return of the trouble. The other case was that of a boy fifteen years of age, who came to me for a similar condition. He had no organic trouble. I gave him fluid extract of ergot also, and it entirely prevented the trouble, and he has not had any since. I asked him to report if any sweat occurred and so far he has not returned. It seems to me that the results were wonderful, and I was surprised that no one had discovered it. It seems to me that it is one of the most feasible therapeutic agents that we have in the treatment of night sweats. After these cases I looked up the subject and was a little surprised to find that the authorities do not mention ergot in this connection. Ringer says it has been known to relieve sweats and that is the only allusion that hemakes to it.

Dr. Ohmann-Dumesnil.—In regard to the ergotine for night sweats in phthisis, I saw it mentioned in the medical journals two years ago. Perhaps the Doctor consulted the older medical works. It is mentioned in those of a more recent date. I remember distinctly seeing it specified in quite a number of medical journals. I think it was a Philadelphia physician who was speaking of it at the time. I had occasion to use it in a couple of cases at that time, with quite an amount of success. This was about two years ago.

DR. MOORE.—I claim no priority at all in the matter. If these articles appeared they escaped my notice.

DR. MEISENBACH.—I would like to ask Dr. Hurt if he does not think it would probably have been better to have dilated the cervix before applying the chromic acid. It seems to me that by adopting this method he would not have run any great risk. Then the question might be asked whether this was a pure case of hæmorrhagic diathesis, or whether it was a case of pulpous condition of the mucous membrane which we often find in the uterus. This may have been the cause of the trouble and would account for the failure of the astringents to act efficiently. If the membranes had been scraped with a dull curette and the remedy applied, it would probably have effected a radical cure. This seems to me, would have been the rational treatment. In regard to the injection of the uterine cavity with fluids of any kind, I think it was most hazardous. Even the most innocuous of all liquids, water, I very much fear to inject without dilating the cervix, being afraid of producing secondary peritonitis.

DR. HURT.—At the time when I made the injection, I made an examination and concluded that there was suffient dilatation to permit the fluids to return, or of course I should not have injected.

SATURDAY, April 7th, 1883.

Dr. Rumbold being called upon to make some report of the proceedings of the Kentucky State Medical Society, which he had recently attended, said:

DR. RUMBOLD.—Mr. President: I had the honor to receive an invitation from the President of the Kentucky State Medical Society, Dr. Price, to read a paper on the Treatment of Chronic Nasal Catarrh. I accepted the invitation, and had a very pleasant time. There were about one hundred members in attendance. A very extraordinary case was reported by Dr. McCormack, of Bowling Green, president elect of the Society. Dr. Wilson had been speaking of the effect of injuries on the head. He was followed by some other physicians, who spoke of the effects of depression upon the brain; and afterward Dr. McCormack related a case that transpired under his own eye, and was now living in Bowling Green, as were also his father and mother.

When this boy was ten years of age he was struck on the head with a hammer. He fell to the floor in an unconscious condition. He remained so for a few hours, but finally consciousness returned, and apparently he was not badly hurt. There was, apparently no alteration in his actions or character until he was nineteen years of age. But nine years after he married, and a few years after he commenced to be very talkative; his character changed. He was sometimes morose, but most always talkative and sometimes quarrelsome, and as such he was known to the whole town. Finally he got so very troublesome that he was taken to Dr. McCormack to be examined, in order that he might be sent to an asylum. While making this examination the doctor put his hand on the patient's head, and felt a depression; he also noticed that the patient shrank under the slightest pressure. The doctor recommended that he should be trephined at once, as he thought that might be the cause of the man's peculiarity of character. The patient, after some time, probably the next day, was chloroformed, and he took out two pieces of bone from his head, and filed off the corners left by the two openings, overlaping one another. Now comes the strange part of the history of the case. When the man recovered from the effects of the chloroform, the whole period from the time when he was ten years of age to his twenty-sixth year, was contracted into a few hours or at most a day. He had acquired some property, but had forgotten it; he did not know that he was married, and in fact he did not know anything that had transpired between those two dates. It is the most extraordinary case that I ever heard in my life, and it would not be well to repeat it except for the fact that this man is alive and living at Bowling Green. I am goine to have the complete history of the case for my JOURNAL, and of course it will be read with interest by every medical man in the world. Here there was sixteen years of oblivion.

DR. HURT.—Mr. President: As the subject of hæmorrhage, or rather, diathetic hæmorrhage, was under consideration at the last meeting, and during the discussion the subject of uterine hæmorrhage was drawn in, I thought that perhaps it might be interesting to supplement the discussion of that subject with a couple of cases that fell under my observation during the week.

On the 3d instant, I believe it was, I was summoned to a lady in the western part of the city, between 28 and 30 years of age,

I suppose, the mother of three children, who considered herself in the third month of pregnancy with the fourth child. In the morning, after taking some considerable exercise, she was seized with uterine hæmorrhage. By the time I got to her the hæmorrhage had ceased. I found a large quantity of blood in the chamber, and quite a large quantity, also, in the sheets; and when I came to make an examination I found that the vagina was filled with blood clots, as was also the uterus as far as I could explore it. The uterus appeared to be quite out of my reach, so far as the body of the organ was concerned, and I found it very difficult to bring it within reach, and as the hæmorrhage had ceased, and no fœtus had been found, nor any fœtal sac had been found in the vagina, nor in the blood clots that we had under our observation, the inference was that the fœtus and the fœtal sac still remained in the uterus. I plugged the vagina and sent for a prescription of ergot, as the os uteri was quite well dilated. The hæmorrhage had been so very profuse that the patient was completely exhausted from the loss of blood. I sent for ergot supposing that under the efficient action of the ergot the contents of the uterus would be expelled. Fortunately for the exhausted lady, under the aid of the medicine and tampon there was no further hæmorrhage, and I was at a loss how further to proceed, for the reason that the presumption was that the uterus had not emptied itself, and the patient being some distance from my house, I apprehended that there might be a return of the hæmorrhage at any moment. Under these circumstances some of our best authorities recommend the insertion of the hand into the vagina so that the fingers will reach the uterus, and relieve her of the fœtus forcibly; other authorities, in my estimation quite as good, advise, when there is no active hæmorrhage, and no absolute demand for this remedial interference, to delay the operation of forcibly emptying the uterus at this time, or at that stage of the pregnancy, it would necessitate the use of chloroform, and chloroform has the reputation of rather favoring and facilitating hæmorrhage than otherwise. At any rate I did not choose to administer it. I kept my patient under the influence of ergot, and saw her again the next day. She had had no more hæmorrhage. I took out the plug and inserted another, and gave directions that there should be perfect quiet. On the evening of that day the patient seemed quite cheerful, and had no pain. In the meantime, however, on

the morning of the second day it was reported to me that the fœtus had been found on the floor where it had been shaken from the sheets. I have the specimen here and present it to you. It is a fœtus of about the beginning of the third month, perhaps. Now, it is possible that the fœtal sac might have been thrown off at some time, under the influence of the uterine contractions. I had almost decided to trust her to rest, but upon consideration I concluded to make an examination, which I did on the evening of the third day after I saw her, as I was not very well satisfied. The uterus had sunk a little lower in the pelvis, and I could pass my finger into the os, and I found that there was a sense of thickness there that did not exactly satisfy me that all was right. I got the consent of the lady, and introduced a sound along my finger and carried the point of it into the os uteri, and some distance up, and as I explored with the point of the sound I felt some object between the point of the sound and my finger—it was a membranous substance, and being anxious to ascertain what it was, I carefully, with all the force I could safely use, pressed the point of the sound upon my finger and commenced to pull down, and the lady immediately complained of pain, and I was hesitating in my own mind whether I should pull or not, or whether I had hold of the lip of the os, when I felt it drop a little, and I kept on pulling, and I soon became satisfied that it was nothing that appertained to the organ of the female, and after pulling for some time it came away, and proved to be the fœtal sac. My patient had no further trouble after that.

In addition to that case I have here to report the history of a case that I encountered this morning. I was called about three o'clock this morning to attend a lady in labor, whose history, so far as I know, is about this: About a year ago she consulted me, and reported that she had been married some four years, and had had two miscarriages at about the seventh month, and lost her children. She had been treated for some uterine trouble before she saw me, and she looked a little careworn and somewhat emaciated. She was a slender woman, about 28 years of age, I suppose, and in conversation with her I learned that both she and her husband were very anxious to be the progenitors of a living child. I gave her some advice, and some three or four months later the husband reported to me that the wife was pregnant, and placed her under my observation and care. This

morning, as I remarked before, I was called to attend her at full term, and she gave birth to a living child, weighing ten and a half pounds, after a somewhat tedious labor. The greatest trouble in the parturition, so far as the expulsion of the child was concerned, was found to be after it had reached the vulva. The vulva would not readily permit the child's head to pass, and she suffered for some time, and I began to apprehend that there would be some laceration of the perineum, but I think she escaped, without any very serious laceration, at least. I was delaying somewhat before separating the child from the cord; and as soon as I could, after the delivery of the child, I administered a dose of ergot, the fluid extract, and was again waiting, as modern authorities seem to think that it is better to wait, and not be in too great a hurry in separating the child from the placenta, although the child did not seem to be in any great need of this care for its preservation; while waiting I noticed that the mother was flooding very copiously, and I immediately separated the child, and administered the second dose of ergot, and proceeded to deliver the placenta; that was to be the first step in the treatment of the case, but to my regret I found that the placenta was quite adherent, and not only adherent, but extremely rotten—so rotten indeed that, as you will see, I have torn it all to pieces in trying to get it out. I first discovered that it was rotten on making the cord tense, and in trying to make the necessary tension to remove it—not unusual tension; however, I felt it giving way under my finger—it broke in the same way as we can feel a cord which is made of several threads break when one thread gives way—you are sensible of the giving way of the thread. You will notice that this cord has some evidences of disease in it. The placenta was adherent, and the posterior margin seemed to be separated. In my efforts to get hold of it I succeeded in getting my hand entirely into the uterus. One half of the posterior wall of the uterus had fallen in, as was indicated by the partial involution. I rectified that, however. At the same time I discovered that the uterus was well contracted. The trouble about its contraction, however, was that it contracted irregularly. I finally succeed in getting away the placenta, and the hæmorrhage immediately subsided, and it was a question with me whether the subsidence of the hæmorrhage was due to the fact of the extraction of the

placenta, or to the other fact, that there was no more blood to be lost, for my patient was in a fainting condition. She was in what might be called a collapsed condition; she was pulseless. At this juncture of the treatment I administered toddy in hot water, and pretty soon she began to rally. Contrary to my advice, she insisted that her child must be put to her breast. I warned her of the danger, and told her that there was no necessity for it; she would have the child put to her breasts. At that time the uterus was contracted, and there was no more hæmorrhage; but the excitement of the act of nursing was too much for her, and her pulse began to sink again, and her face and hands and the surface of her body became cold. I had the infant removed, and gave stimulents again. Among other things I gave her hot coffee, pretty strong, with some milk, and had the good fortune to see my patient rally again. After the placenta was removed I threw it into a large, light bowl, and called for something to aid me in getting out the blood clots that lay, as it were, in heaps about the nates of the patient. I dipped up a night bowl full, including the placenta, besides an immense quantity of blood that had been absorbed by the sheets. I think the patient must have lost half a gallon. May be I am mistaken; but I think it was the greatest amount of blood I ever saw escape from a patient, in my experience, in any case of labor. I am happy to say that the patient is doing quite well.

[Dr. Dean presented a specimen of diaphragmatic hernia of the stomach, gastro-splenic omentum and splenic flexure of the colon, which he did not wish reported, as he had presented it to another society that publishes its proceedings.]

Dr. Johnston.—I did not catch the period at which the case of abortion reported by Dr. Hurt occurred; was it four or five months?

Dr. Hurt.—Three months.

Dr. Johnston.—Now, Mr. President, there is nothing more common in obstetrics than from the third to the fourth month to meet with abortion; and when I entered the profession forty years ago the writers of that day led a young man to believe that he must go to a case of abortion with fear and trembling, they made such exagerated statements in regard to the hæmorrhage. It was enough to frighten any young man. Then, also, there was the statement that if air got into the cavity the patient

would die immediately, either at time of abortion or at full term. Now as regards this abortion, there need be no uneasiness about it. There need be no unusual anxiety about it. An experience of forty years has proved to me that fact; the fœtus may be expelled, and unless there is excessive hæmorrhage you need not trouble yourself; and if the womb is not contracted, or there is an attachment of the placenta, you will have no hæmorrhage at all, or very little. All that you need do is just let your patient alone. If the chorion, or a portion of the placenta does not come away in the course of a few hours or days, let it alone, unless there is hæmorrhage, and then theremust be a detached portion of the placenta, and if a part is detached, decomposition may go on and it become necessary to get it away. It is an impossibility, as the gentleman said who reported this case, that some gentleman recommend in such case to put the hand into the womb at the fourth month. It is impossible.

DR. HURT.—I said put the hand in the vagina.

DR. DICKINSON.—In regard to the case reported by Dr. Rumbold, I would like to call Dr. Stevens' attention to it, and ask if he would consider that a case of double consciousness, would also like to hear his experience in regard to cases of this kind.

DR. STEVENS.—There are remarkable cases on record of what might be called automatic cerebration from epilepsy. There is a case on record by one of our specialists of a case of an indivual laboring under epilepsy who transacted business for some length of time, went fron New York into Conneticut at a differen town—to Hartford, and lost the consciousness of transacting this business. It was all correctly transacted. That is, perhaps, the most remarkable case that I recollect. I can not account for it at all; as to its being a case of double consciousness, I do not know whether it would come under that head or not; it seems to me it would not. I do not know that I could give anything without an examination of the records, but I would take this to be a case of epileptic condition in which this person remained from the time he was ten years old until the operation. I do not know that, at this time, I could answer the doctor's question.

DR. JOHNSON.—What is understood by double consciousness?

DR. STEVENS.—I can not fully answer that at this time. It

is a condition in which a person performs automatic actions that appear to be actions of consciousness. Is that the Idea, Dr. Dickinson?

Dr. Dickinson.—In a word, Mr. President, cases are on record in which persons, on account of some violence, perhaps, passed into a state of entire ignorance of what has transpired, or what transpired previously, and then again, in the course of time they will come out of this condition, and they are ignorant of what transpired while in the normal condition, but they have a recollection of what transpired previous to that state, that is the condition to which, as I understand, has been applied the phraseology of double consciousness.

Dr. Johnston.—That is a new departure in medical philosophy. Consciousness is to be in possession of the senses and relations that surround us. That is according to Sir William Hamilton, Kant and Comte. Now we are either conscious or not conscious. I am now conscious that the room is full of gentleman; now, I receive a blow, and the coördination of my relation to these gentlemen is lost, it is not double consciousness; it is destroying a portion of my consciousness. So that this doctrine of double consciousness can not be maintained.

Dr. Ohmann-Dumesnil.—I do not know whether the doctor read the case of double consciousness which has been observed in the southern part of France, for twenty-two years a young woman who, for twenty-four hours is in a normal condition, and then for about twenty-four hours she is in a state of double consciousness. And during the second period she is completely ignorant of what transpired during the first period, but when the state similar to it returns she remembers what occurred during the previous time. There are two distint states which she remembers each in its turn.

Saturday, April 14th, 1883.

Dr. Mulhall.—I would like to report a case which was interesting to me on account of its rarity, and also as showing the value of Laryngoscopy. Three weeks ago Dr. Boisliniere sent me a patient for laryngoscopic examination. His principal symptom, and it was annoying enough, was extreme fetor of the breath.

He had already been treated on the theory that the fetor arose from the stomach, he had tried charcoal, listerine and the various antiseptics without relief. On examining his nose I found that in the vault of the pharynx there were some crusts adherent,and a great deal of chronic inflammation. I thought that I had discovered the source of the fetor, but upon reversing the mirror and examining the larynx, particularly the trachea, I found a condition which much better accounted for the fetor than the condition which I had found in the nose. I, however, first washed the nose out thoroughly, and thoroughly drenched it with listerine afterwards in order to remove that source of fetor What I saw below was an ordinary—not a very ordinary condition either—a chronic laryngitis and tracheitis, which was rather unusual. The whole larynx was of a uniform dark red color, unrelieved by a single bright spot, and in the trachea there was a large aggregation of follicular masses, each about the size of a pin head, adhering to the walls of the trachea, thickly coating the cricoid cartilage. The gentleman was about twenty-three years old, he had been in this country about six months; being a native of Germany. I mention this because it has something to do with the subject.—He told me that he had been subject to nose and throat disease for a period of five years, whilst in his own country, in fact had been under the treatment of Professor Rosebeck but that he never had fetor until he had been in this country one month, he has now been here six months.

The family history was perfect in regard to scrofulous or lung disease. I inquired very closely with regard to himself, there was no history of syphilis. The case is interesting from the fact that this condition very seldom occurs and that the cause of the foul breath would without the laryngoscope have never been discovered. It is a chronic condition, the effect of laryngitis and tracheitis. Dr. Cohen in his book on diseases of the throat mentions the fact that he has seen several cases but they were all in foreigners. The subject is one that has received little attention. I don't think Dr. Mackenzie mentions it in his book. I advised this gentleman, in view of the fact that he had chronic inflammation of the larynx and trachea for five years without fetor, and then this symptom presented itself in a month after he arrived in this country, that perhaps it was better that he should return to his own Country, other circumstances also made it agreeable for him to return and he took his de-

parture. I mention this because I don't think I would have been able to have cured him. This affection is almost hopeless. I have seen some other cases but not in this country.

DR. POLLAK.—What was the cause of fetor.?

DR. MULHALL.—The decomposition of the crusts in the trachea.

DR. GREEN.—Mackenzie in his book, if my memory serves me right, does not mention a case of this kind which has been complicated with fetor, and I think it would have been right for the doctor to have tried to see what he could have done by treatment in this case. In such a case I think the right treatment would have been to perform tracheotomy low down, and then the nose could have been treated antiseptically.

DR. MULHALL.—There is one case on record a case which Dr Frænkel of Berlin had under treatment, of a similar nature—a lady who suffered from this affection in the nose, larynx, pharynx and trachea, and he was unable to afford her any relief. I believe that that is the only case on record there.

DR. POLLAK.—What proof is there that the fetor came from the trachea and not from the nose.?

DR. MULHALL.—The fact that I disinfected the nose thoroughly and the fetor was still as strong as ever.

DR. GREEN.—After injecting the nose could you still discover fetor.?

DR. MULHALL.—Oh, yes, very strong.

DR. GREEN.—I think that fetor will actually be maintained for a long time. I would have put a tampon in the nose—in the posterior nares and thus have stopped up the whole nose, so that nothing could come through it and then if there was fetor we could be sure that it came from the trachea. We are not sure that the Listerine that the doctor used was sufficient. You can't take away fetor at once.

DR. MULHALL.—I argued this way; in the first place there was very little disease about the nose, most of the disease seemed to be in the larynx and trachea and I first washed all the decomposing matter from the nose and then disinfected it thoroughly —then finding that the fetor was as strong as ever, and taking into consideration the fact that there had only been one case

like this reported—of these follicular masses covering the walls of the trachea, I concluded that it was a case of fetid tracheitis. The man was healthy otherwise so far as I could learn.

DR. BLOUNT.—I have had a most interesting case within the past month. I didn't expect to present it until I had completed my treatment somewhat; but as there is nothing before the house I will state the case as far as it has gone. I was sent for to see a woman who was flooding at her menstrual period, loosing a good deal of blood, as her husband told me. I found the patient about, I should judge, thirty-three years of age; and, so far as I could ascertain, the discharge was nothing to give any serious alarm. The case was very interesting to me from the fact that they told me that the woman had been sick for three years, constantly getting worse, never being able to obtain any relief from the treatment of a number of physicians who had seen the woman in that time. She resided in the County near Bridgeton, and had been seen by most all the physicians that practice in that section of the country. She thought she had the dropsy and told me that some of the doctors told her that she was affected with that trouble, and one of them had twice come prepared to tap her. I found her legs somewhat swollen, her abdomen enlarged, extreme tenderness in the abdominal and pelvic viscera. I happened to be the first physician that had made a vaginal examination and that was the means of inspiring great trust and confidence in myself; I was enabled by this means to ascertain that the womb was very tender, irritable and somewhat prolapsed.

Well, I didn't know what was the matter and I spent three weeks in hard study trying to find out. I also took another somewhat eminent physician in this city, out to see the case in consultation and he elicited a statement from the patient that I had not been told; she told him that she passed enormous quantities of water, sometimes she said, as much as two and three gallons. He suspected a case of diabetes, and told me to test for sugar. So that I spent several days in making the tests. I took a number of samples of urine and tested them for sugar, but I was not satisfied with my tests. I got something with the reaction, but I didn't know what it was; I was not satisfied that it was sugar. I took a sample down to the college to Dr. Friedman and had him test for sugar, but he didn't find any. I took another sample to Dr. Kingsley and I tried all the tests,

Frielings, Trommers and More's; then Dr. Kingsley had the kindness to make a microscopical examination of the urine for me, and he found no trace of sugar, but found that the urine was normal in its specific gravity, so I began to doubt the woman's statement that she had passed such large quantities of water, and I had her measure it and found she passed, some days a pint, and some days three pints, according to her statement, the quantity was greater near her menstrual molimen; the quantity varied. I attributed this increased quantity of water to natural causes and nervous trouble. One reason why I suspected diabetes was because the patient complained of an aggravation of her general symptoms after eating starchy food. Well, not finding any sugar in the urine I excluded the theory of diabetes from the diagnosis, and having found that the quantity of water was not excessive I wondered then what was the cause of the dropsy. I had at no time seen the patient when her abdomen was much distended, and when I did see her when her abdomen was slightly distended, I was unable to make out whether there was water there or not. There was considerable fat about the abdomen, and I didn't get as clear a sound as I would expect in a tympanitic patient, nor did I get as dull a sound as I would expect from the presence of water. But not finding any sugar in making our tests I began to suspect that there was no water in the abdomen; I began to suspect that the trouble from the digestion of starchy food was owing to fermentation, and I put my patient upon nox vomica, creosote, and liquor potassa. That is the only treatment I used, with the exception of hot water vaginal injections, which I had ordered when first called, and hot poultices to the abdomen. I had given no internal remedies whatever until I made this diagnosis of fermentation. I saw my patient about four days after I commenced this anti-ferment treatment and she was up and about, and told me that she was better than she had been in two years. I believe I neglected to state that the woman had profuse leucorrhœa. That is as far as my treatment has gone. I have not seen the woman now for four or five days, but the case was very interesting to me from the fact that she had had no physician heretofore who had made anything like a diagnosis, and the one who was going to tap her would have made a great mistake if he had tapped for water and found that he had punctured a bowel; and the fact that I took a rather eminent physician out with me, who had been led astray by the answer of the patient, and who

wanted me to send the patient to a hospital instead of treating her at all. I attributed her nervous symptoms to the displacement of the womb, and the general abdominal tenderness also to this displacement. She had an attack of malaria three years ago, from which time she dated her general sickness. The stomach and bowels are in good order, the bladder is extremely sensitive to the touch. There was no evidence of any cystitis under the microscope; and there was no evidence of any marked kidney trouble, from the examination of the urine.

DR. ATWOOD.—As I have practiced medicine some eighteen or twenty years, I took some interest in the statement of the Doctor. There are two or three physicians living in that section of the country who are really excellent members of the profession. I don't know whether any of these wanted to tap the woman or not; but I take it from the statement of the case that the woman is hysterical, dependent upon debility. This patient has subacute inflammation of the womb, perhaps endocervicitis. I think all the phenomena presented were dependent upon a derangement of the nervous system, which is called hysteria, which comes in so many forms that it is difficult to say whether it is a mere symptom of disease, or is the disease itself. With regard to the statement about the profuse discharge of urine, I am prepared to believe it. It is one of the phenomena presented in hysteria—the profuse discharge of urine. Sometimes there will be a suppression of urine, that is to say the bladder will not discharge it—it can not be gotten rid of even without the use of the catheter. The Doctor made a vaginal examination and found tenderness about the abdomen, he found œdema of the extremities; I don't see anything very extraordinary in the case, upon his own statement. The treatment in this case, it seems to me, should be to give anti-spasmodics and tonics.

DR. BORCK.—This case is an interesting one. It may be such a case as the Doctor has just announced it to be, but I wish to make this remark and give the case consideration. The question in the Doctor's case would be this: first, there was œdema of the lower extremities, swelling of the abdomen so that a physician once or twice came prepared to tap the woman; she passed large quantities of water; now the question that I want to ask is this: did this œdema of the lower extremities occur before the

swelling of the abdomen, or did it occur after the swelling of the abdomen had been noticed? The next question that I would settle would be this: Is this fluid which has been passed by this lady, urine or is it not urine? That is the question; are you positive that it was passed by the bladder? I would then inquire whether it came from the bladder or whether from the vagina, or whether it might have been passed per rectum. The reason I mention these points is, that I had an interesting case a few weeks ago; a lady under my observation complained of a trouble similar to what the Doctor has stated, and her abdomen was enlarged; she has been advised to be tapped two or three times, but she was not tapped. She went away from home and stayed away for two or three months and returned better. The abdomen was still enlarged, very large, so that her husband and parents and neighbors thought that she was pregnant and certainly must have two or three babies. Another physician was attending this lady at the time I saw her; and at that time her abdomen was not so large as it had been. She said she had passed large quantities of water from time to time and had been examined for all kinds of diseases, and the gentleman who examined her then suspected tumor. Well as I said, she passed large quantities of water from time to time and she couldn't exactly say where the water came from. By the time that I saw the case, there had already presented itself an incipient cancer upon the abdominal wall; it was not clearly distinguishable externally, but there was a tumor there. When I first examined her, I did not examine her with a view of finding a certain disease. I generally prefer to look for a healthy organ; in this case I found that the bladder was healthy. I then looked for the ovaries, expecting to find two healthy ovaries; but I only found one healthy, the second was not healthy; there was evidently a tumor and I could move the tumor. I could feel the tumor through the vagina, but if you want to be sure, you should make the examination per rectum if you cannot satisfy yourself from the vaginal examination. I made this diagnosis: that the lady had ovarian tumor and that the fluid which was passed, was passed from this tumor. We do not have these cases very often, but we do have them, in which the ovarian tumor empties itself per rectum, or perhaps per vagina; in this case it passed per rectum. It passed through a fistulous opening. This was my diagnosis and was verified by the abdominal section. Of course, there might be something else;

there might be cancer connected, may be a dermoid cyst; but at any rate there was an ovarian tumor and it had persisted in spite of all the treatment. Nothing was left to be done in the way of treatment and they consented to abdominal section. I opened the abdomen and found that there was cancer of the abdominal wall, and that it had contracted or grown around the tumor of the ovary, which was about as large as my two hands; the cancerous mass had formed so closely that you could not distinguish by the examination, that there was a cancerous growth before the section. The water which passed from the tumor, passed through a fistulous opening into the rectum. It may be that in some cases the ascetic fluid is mistaken for urine.

DR. POLLAK.—There is so much difference between urine and ascetic fluid that I don't see how a mistake can be made.

DR. BORCK.—I have seen the mistake make.

DR. POLLAK.—The fluid from an ovarian tumor is very albuminous and I don't see how the mistake could be made.

DR. BORCK.—One who is well acquainted with it and careful, who is well acquainted with the fluids of the abdomen, is not likely to make a mistake, but one who is not may be mistaken.

DR. ATWOOD.—The extreme part of Dr. Borck's statement is, in any one supposing it was possible to make a mistake in this case, and suppose ascetic fluid was urine, when it was stated that Dr. Kingsley examined it and Dr. Friedman examined it.

DR. BORCK.—I will state that when one takes fluid that is brought to him and examines that fluid for sugar, tests for sugar only, he may make mistakes. Of course, if the fluid were taken to him and he were asked to examine it and find out if it was healthy urine, then he would examine for all the healthy constituents first; if found normal, exclude all other speculation; if some abnormality is found present, find out what that is and he will not be apt to make a mistake.

DR. BLOUNT.—I first made a test of the urine which gave me something—I dont know what it was, as the urine was some that passed from the woman, what was used afterwards was drawn with a catheter from the bladder. We examined for everything, but sugar was the only thing that was suspected, and in regard to the statement of her being hysterical and pass-

ing large quantities of water I doubt if the woman ever passed much over the normal quantity. What she claimed was not that she was passing large quantities at a time but that it continued all through. I am certain in my own mind that the woman is hysterical, but the hysteria I believe to be due to the displacement, it is also the cause of the leucorrhœa. But I was mostly misled in my diagnosis by the patient telling me what all these other doctors had said was the matter with her.

DR. GREEN.—I only want to say to the doctor that the wisest plan to have adopted in the case would have been, to pass the catheter into the bladder, first telling the woman not to pass any urine till you came again, holding it back as long as possible. The first thing to do would be to find whether it was urine or not, and then to have ascertained the quantity passed at a time. To have emptied the bladder with the catheter after she had retained the urine as long as possible and see how much was passed. And again if the woman passed gallons of water, as she clamed, the bladder must have deen emptied every few minutes or the bladder must have been overdistended. By introducing the catheter you could have shown at once that this was not the case, an then doctor I think if you had examined the abdomen, both in the vagina and through the abdominal wall you could have determined whether there was any tumor or not, because in case of cancer these women sometimes have great loss of blood.

DR. BLOUNT.—The anaemia would account for the excessive loss of blood.

DR. GREEN.—There may be anaemia without any discharge of blood at all. Then I would like to ask Dr. Borck if this ovarian disease was of a cancerous nature.?

DR. BORCK.—No, sir, it was simply an ovarian cyst.

DR. GREEN.—What caused the fistula of the rectum, was it the cancerous affection of the malignant disease of the ovary.?

DR. BORCK.—I told you distinctly that the cancerous affection came later, that this woman suffered three years with this trouble, that this water passed through the rectum before there was any indication of cancer, it was a non malignant opening.

DR. GREEN.—The cause of the fistula was a boring of the tissue.

DR. BORCK.—Yes, sir.

SATURDAY, April 21st., 1883.

DR. FAIRBROTHER.—Mr. President. I will report briefly, a case of phlebitis. Mr. V. B. æt. 30, married, of moderately regular habits and by occupation a ticket agent, came to me about the middle of March past with the general symptoms of fever; not being able to locate definitely the disorder, I prescribed for the symptoms. Two days later I was called to his house and found the fever running extremely high. Although there was a little cough and slight rales in one lung, and some tenderness over the stomach I did not consider either or both of these sufficient to account far the high febrile excitement. This fever continued, notwithstanding active antiphlogistic treatment, for a period of four days, when it gradually subsided. Although during the fever there was complaint of frequent pains in the back and legs, these pains were referred to the bones, and were such as usually accompany fevers; and it was not until the entire disappearance of the fever that the local pain became manifest. This was situated about the middle of the posterior part of the lower leg. Upon examination, the inflamed condition of the internal saphenous was readily detected. At this time the disease was limited to a small section of vein, but it slowly extended upward toward the popliteal space, and finally, upward along the internal thigh until it was lost under Poupart's ligament. There was no redness nor unusual heat of the surface. The only symptoms of inflammation were the pain and the enlarged and hard condition of the vein. The pain was excruciating, and any motion of the leg unbearable. There were occasional rigors followed by fever lasting a day or two. Along the thigh many of the tributaries to the saphenous became involved, and so hard and elevated were they that their course could readily be traced by the eye. For more than a month now this condition, with changing features, has continued. At times there have been symptoms of septic poisoning, and the outcome of the case exceedingly doubtful. The prospects are now favorable. With regard to treatment a variety of courses

have been pursued. The general treatment has been antiphlogistic and tonic. The local treatment has consisted mainly of rest, hot application, rubbing with chloroform liniment, bandaging etc. This is the first case of idiopathic phlebitis that has come under my observation.

Dr. POLLAK.—This is indeed an interesting case and a rare one. We often see something similar in puerperal women, for phlegmasia dolens is nothing but phlebitis, but I do not remember ever seeing a case in a man except as a result of traumatism. I would like to ask the doctor if there is any gouty or syphilitic history, and what position of the leg is most comfortable?

DR. FAIRBROTHER.—There is no history such as is alluded to. And the most comfortable position is a flexion of forty-five degrees.

DR. POLLAK.—Indeed I do not understand that. It should be otherwise. In phlegmasia dolens it is not so. In this disease the woman insists upon keeping the leg straight and flexing increases the pain. Why should it be different in this case?

DR. DICKINSON.—It seems to me that this is a case in which massage could be employed with the greatest advantage. I have no confidence in the use of liniments without massage, and it seems to me this is a case that demands such treatment. Liniments may be used in addition. Wherever there is a tender spot that is the place to receive the most friction. The massage should be commenced at the foot, the extreme ramifications of the veins, and should be then carried entirely up to the groin, using such a degree of pressure as the patient can tolerate and not be very painful. It will be found after a few days that the pressure can be increased. I do not speak from absolute experience in this matter, but in those cases of a similar nature where I have employed friction, I have found a very great advantage. Probably the Turkish bath would also be of particular service, but I would rely generally upon friction, or pressure, I may say, along the course of the vein from the foot to the thigh. This may be done for half an hour, may be once or twice a day. I suggested the employment of *massage* for the treatment of chronic phlebitis for the purpose of *expressing* the products of antecedent inflammation from the walls of the affected vessels.

The four essential factors of inflammation are present or *have been* and have left their characteristic sequelæ: 1. Pain is subjective, appreciated only by the patient. 2. Redness, when sufficiently superficial, is perceptible to the eye. 3. Heat, and 4. Swelling are estimated by the sense of feeling.

In this affection the outer and middle layer of the vessel are the parts involved, the internal is not obnoxious to the same morphological conditions. Not being a vascular tissue, and, if at all, is only secondarily affected. The vaso-vasorum are hyperæmic to an intense degree. Stagnation of blood and lymph ensues, conducing to hyperplasia in the walls of the vessels which conveys to the finger the sensation of a cord underlying. Miller has most classically and significantly defined the cause of swelling, viz.: "Extravasation of the vascular contents into the inter-vascular spaces." It is a well-known fact in surgery, that swelling in a superficial part, as the arm or leg, may be perceptibly diminished, and in a short time, by methodically rubbing in the direction of the venous and lymph currents. This is *the form* of massage which on theoretical grounds, I recommend for phlebitis and for the same reasons. Heat with moisture and other topical affections may be employed simultaneously and perhaps the most effectual wrapping is the entire portion of the limb in a plaster of ung. hydrarg. Liniments the most composite or cutaneously active, without the intelligent, patient and persistent friction with pressure, will avail comparatively nothing. The degree of pressure and friction by the fingers or hand, must be proportioned to the amount of swelling, degree of tenderness of the part, and profundity of the vessel; but in all cases must be extended and applied in the direction of the venous current. This manipulation should be commenced near as possible to the junction of the affected vessel with that into which it discharges its contents and by degrees lenthening the frictional stroke backward. The contents of the vessel itself may not, in any degree, be involved, for it has been demonstrated that phlebitis may exist and the blood current remain perfectly free and unobstructed.

The *modus operandi* of massage thus employed is entirely mechanical, having for its sole object, the putting in motion that which has become stagnant, or promoting the progress of that which manifests a proclivity to statis; and by this facilitating the introduction of extravasations into the blood currents, secure

its ultimate elimination therefrom by the several emunctories, in the aggregate constituting the process of *absorption*.

I think there is little or no occasion for the apprehension that embolic or thrombolic process will be induced or even favored by the massage thus effectively employed.

DR. POLLAK.—It has benefited a number of people in the city here whom I know; one who was the victim of gout for some time. He was advised to try manual massage, and did so but it did not relieve him; he then used the mechanical massage and it has been of the greatest benefit to him; he now walks with the greatest ease. He called my attention to it and I was perfectly amazed at the results. It acts so rapidly and has so many movements that it is vastly superior to manual massage.

DR. WATKINS.—Dr. Fairbrother has presented truly, a very interesting case. It is a diseased condition that is met with but rarely. Drs. Pollak and Dickinson recommend massage in such cases, or at least suggest it, and that its application shall be made with force. I should deprecate massage for two reasons: 1st. Any structure under inflammatory condition should be kept strictly at rest. 2d. Dr. Fairbrother or any other physician can not to a certainty diagnose or tell the exact condition of this vein, to what extent degeneration or disintegration has taken place, in the lining membrane of the vein, and one of the greatest dangers from phlebitis, namely embolism, might be produced from massage, especially if applied with force, as suggested by Dr. Dickinson. I would feel warranted in treating this affection as I would *phlegmasia alba dolens* of the female. *Rest*, applications of ungt. hydrarg. and the envelopment of the limb entire, in oiled silk. I might give small doses of calomel on general principles, in fact, treat it on the so-called anti-phlogistic plan, but above all, *rest* and no massage.

Dr. Stevens has suggested the question of doubt, held by many, that phlegmasia alba dolens is not a phlebitis. I cannot but consider it certainly a phlebitis, the general constitutional disturbances accompanying the trouble, the tenderness along the course of the vein, all would indicate to me an inflammation of underlying structures.

DR. OHMANN-DUMESNIL.—If the case is one analogous to phlegmasia dolens, I would like to call Dr. Fairbrother's attention to a paper that was read at the last meeting of the State Medical

Society by Dr. Schenck on the application of the rubber bandage. He claims that he has had extraordinary success with it in the treatment of such cases, and certainly if the case mentioned is an analogous one it ought to be equally beneficial; the objects to be attained are increased action, uniform pressure and rest.

DR. POLLAK.—In answer to Dr. Watkins I will say, the analogy between the phlegmasia alba dolens and this case is not exact. Phlegmasia dolens generally begins at Poupart's ligament, owing to the obstruction of the vein; now Dr. Fairbrother states this trouble began below and went up. This is an entirely different thing. I never heard of such a case beginning below and going up. In phlegmasia dolens it is directly the reverse.

DR. JOHNSTON.—I believe the doctrine in regard to phlegmasia dolens is that it is due to a disordered state of the lymphatic glands. German obstetricians still claim that it is due to the absorption of septic matter from the internal portion of the womb; that the womb has come in contact with the air and the recoiling process is going on and there occurs what is termed septic matter, which is taken up and this causes phlegmasia dolens. I have seen some cases of this trouble. In the older works we were taught that we had an inflammation of the vein to deal with. If it was truly an inflammation of the veins and the lymphatics were not involved, we would not have that whitish appearance. The older writers on this subject recommended bleeding, and I still think it good practice in plethoric females, whether it be an affection of the veins or the lymphatics, to reduce the quantity of blood, and thereby affect the circulation in the heart and arteries; and the next practice would have been to give mercury, with the idea of checking the recoiling process. Now in this case it seems that the blood vessels were gorged with blood and stasis had taken place; that the circulation in the vein was perhaps suspended; and if there was inflammation in the vein, then the practical common sense thing to do would be to place the leg in a flexed position, as the gentleman did, and give it rest. Now in regard to massage, if the trouble has passed the active stage of congestion, of stasis, and it requires stimulation, then massage, either with the hand or by the machine that has been imported from New York, would be good practice; but before that time we will only increase the destructive influences that are going on in the vein and perhaps bring about an organic lesion, or as

one gentleman has stated, we might remove a few pus corpuscles in the vein that have partially organized, and these passing along would produce embolism. So that the best plan, in my opinion, would be not to use much violence until the active stage had passed. I should have some hesitancy about bandaging the leg in its active state of inflammation; I should prefer to reduce the inflammation by cold applications. A bandage might answer the purpose, but my observation of the use of the bandage in acute inflammatory condition has been that it gives a good deal of pain. Here I think that quiet and the use of a bandage might do the greatest amount of good, but the difficulty is here; there must have been a cause producing the acute inflammation of the vein; we are bound to assume that there was an irritant which has caused the inflammation not only in the blood of the vein but in the vein itself and in that condition if we attempt too much motion, we increase the irritation. If we put the bandage on too tight, we don't furnish a sufficient amount of nutrition, we interfere with it, and we will have a greater disturbance and death of the parts ensuing; in such a case if we apply the bandage we may do a good deal of harm; but it strikes me, Mr. President, that that would be the most rational treatment. In the absence of the bandage I should think the treatment that is applied in phlegmasia dolens—inflammation of the veins and arteries—might be used with good results; the application of warmth and fomentations. We apply these with the idea of producing a relaxation of the fibres of the lymphatics and also the veins, and by that relaxation, force the heart and capillaries to cause the blood corpuscles to flow on and return to the heart, and thereby carry on a certain amount of nutrition and thus overcome the stasis, and thereby cure the patient by this application. What the remedy in this case would be, I am not prepared to say. I should say that it would be advisable to stimulate the nerves, if we could select the proper remedy to give tonicity and a sufficient force to carry on the circulation; what remedy that would be I don't know.

DR. FAIRBROTHER.—Electricity?

DR. JOHNSTON.—In its chronic stage that would be an admirable remedy I should think, but not in the acute stage. I think I would try this India rubber bandage; in several cases in which I have used it I have got good results from its use.

DR. STEVENS.—The subject introduced by Dr. Fairbrother is of interest to me at this time, for the reason that I have within a few days, witnessed a case of this disease. While spending a week in the town of Elkhart, Ind., I was invited to a consultation with Drs. Wear and Latta. The patient was apparently about twenty-two years of age; the labor took place about the 1st of March, and required the use of forceps. At the times of my visit the first stages of the disease had passed, the swelling of the limb—the left one—had disappeared, septicæmia had occurred, as was manifested by purulent expectoration, hectic and abscesses in the iliac region of the right side, and upon the inner surface of the thigh of the same side. All coincided in the opinion that thrombosis had occurred and that emboli and septic inflammation accounted for the general pyemic condition, and for the abscesses in the localities mentioned. It was agreed that incision of the iliac abscess was necessary, but that circumstance justified a delay of a few days. I shall learn further particulars and will report to the society. The patient is in the hands of physicians of experience and skill. The subject of phlegmasia dolens is full of interest, particularly as connected with it are subjects of scientific inquiry now engaging the attention of our sagacious pathologists. Many theories prevail as to the primary cause of the disease, some ascribing it to the metastasis of the lochia, some to the metastasis of the milk (hence milk leg), others to mechanical injuries, pressure, etc., implications of the arteries, veins and lymphatics and nerves in and about the pelvis. Without pretending to any considerable observation or experience, I cannot help being impressed with the idea that very efficient and adaquate causes may exist in injury either to the nerve troubles in the plexuses or to the nervi vasorum supplying the coats of the vessels, thus causing partial paralysis, and secondarily, stasis in their circulation. It appears to me that what is commonly understood by the term phlebitis, does not by any means embrace the conditions. Even in the first or most active manifestations of the disease, there is an absence of many of the ordinary indications of inflammation, the temperature is but slightly elevated, in fact, in many instances it is considerably lowered, the surface, though the limb is swollen, is pale and glistening and becomes very soon partially anæsthetic; the pain being of a dull or heavy character, the part not sensitive to pressure. Whether the primary lesion is to be looked for in the nervous or

the vascular structure, is a question that may remain for a time unsettled, but the dyscrasia which occurrs in secondary stages is unquestioned, and is of itself a matter of interest and importance. The migrations of trombi and the lodgement of their debris as emboli, especially in vital organs is practically the most serious matter of the affection.

Dr. Johnston.—The case reported by Dr. Stevens has some interesting points; but I have some doubt about the trouble having commenced in the left inguinal region low down. Now I have seen quite a number of those cases of inflammation, and gynæcologists use quite a number of terms to express that condition brought on by mechanical injuries during labor. I would not be inclined to think it occurred from an injury received in giving birth to the child because the abscess would be goverened by the laws of gravitation and would form in the lowest part of the cavity. The peculiar glistening appearance of the leg, as I said before, is due to lymphatic inflammation; and I think that is the doctrine that gynæcologists now hold, that it is an inflammation of the lymphatics.

Dr. Stevens.—I will state that the abscess was too far down from the vagina to be a case of cellulitis. It was in the vicinity of the antero inferior spinous process of the ilium.

Dr. Lutz.—Mr. Chairman, the dangers that are designated as the possible causes of death in inflammatory conditions of the veins, are embolic pneumonia and pyæmia. I lost a case yesterday of a patient who was suffering from pneumonia, and in my opinion it was a case of embolism. The embolus was carried from the leg to the pulmonary structure. This man was employed in a quarry some 70 or 80 miles down on the Iron Mountain Railroad, and a rock thrown by premature blast fractured the tibia and fibula in perhaps five or six places. The physician who first saw him dressed the fractured leg. It was a compound fracture. The physician dressed the leg and a week afterwards he was sent to the City, I saw him and had him transferred to the Hospital, and after making a thorough examination of his case came to the conclusion that amputation was the only possible chance for recovery. The entire cellular tissue of the leg extending high up over the knee was inflamed. This was about a week after the injury. I amputated the leg. There was no evidence of pulmonary trouble of any kind when I first saw

him. I made a careful examination of both lungs, and there was no evidence of pulmonary trouble for some days afterwards until one morning I went to the hospital and found him breathing heavily, and on percussing the chest I found that the right lung was engorged and a pneumonia developed, for which I account on the theory of embolus, as the hygienic and sanitary surroundings of the hospital are very good. I concluded that the pneumonia was caused by embolism of the pulmonary structures produced by the absorption of pus from the leg; and it occurs to me that in cases of inflammation of the veins, when death occurs through embolus, it is usually embolus of the pulmonary structures. This is based on the anatomical condition, that forced the embolus, whatever may be its size, through the return circulation to the heart, and thence into the pulmonary tissue and there lodged. The danger from embolus in the cerebral structure would be considerably less—really it seems almost impossible that there should be such a result unless we suppose a very small embolus not larger than a blood corpuscle, to be carried by the circulation into the cerebral structures and there cause embolism. How pyæmia would be a cause of death in cases of phlebitis is equally apparent to me, when we remember that the products of the inflammation are located in the parietes of the vessels, and would quite naturally be carried through the circulation and if these products, as is most likely, should have undergone degeneration such as would result in the multiplication of the products of the inflammatory action in the vein, it stands to reason that very soon the life fluid would be poisoned. Now about the treatment in a case of this kind. I believe that rest for the part which is affected with the inflammation is the first indication, and I believe, too, that the application of the hard rubber bandage is of great service. I use this bandage a good deal in inflammations about the extremities, and especially the lower extremities. I think in varicose veins there is no treatment that promises such uniform success, excepting perhaps the obliteration of the veins. I have used it also in angry looking ulcers, deep excavations with cartilaginous edges, white hard edges, and I have seen them heal most rapidly under the use of the hard rubber bandage, and what is more the patient need not necessarily remain in the recumbent position with his foot elevated, but can go about his business.

DR. STEVENS.—I think that the relief which we often see follow the use of hot applications in these cases, is due to its influence upon the nerves, that, at least would be the explanation I would make in my own mind. There is another danger arising from this inflammatory condition of the veins and that is of laceration of the vein. This sometimes occurs. The walls are very resisting sometimes, but in a depressed condition of the system and especially in varicose veins we are called upon to treat laceration of the veins, or rather the hæmorrhage following it, more than the laceration. I remember a case that lately came under my observation in which a strong butcher had varicose veins, and without any apparent cause, except perhaps that he felt for the last few days a sensation of itching in his leg, the vein burst, and I subsequently found a laceration that had extended probably an eight of an inch in diameter along the inner saphenous vein. I used in this case a bandage—a linen handkerchief bound around it, and over that a tight bandage. I kept the man at rest and left the bandage there until the opening closed. I used no other treatment. Now in acute phlebitis I can explain to myself how gangrene will often take place, and how hæmorrhage might possibly occur, but for the treatment of that, like numerous other conditions of that kind, the tentative treatment—symptomatic, dependent on the condition of your patient, and dependent on what will do the most good, is indicated rather than laying down any specific course of treatment to be followed.

Article LXIII.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

[Reported for the Journal.]

Thursday Evening, April 12, 1883.

Dr. M. O'Hara in the Chair.

Three Cases of Aneurism and a Specimen of Fracture of the Case of the Skull. Presented by Dr. Guy Hinsdale.

Case I.—Aneurism of the Arch of the Aorta.—Wm. G., a fireman, æt. forty-four, was admitted to the Episcopal Hospital, Sept. 16, 1881, suffering from pneumonia of the right side, associated with signs of pleurisy. It was noticed at the time of his admission that there was a slight diastolic murmur heard at the aortic cartilage and that no radical or ulnar pulse could be felt upon the left side.

The pneumonia pursued its course until it ended in death, on the eleventh day after admission. Eighteen hours before death occurred, after an attack of severe pain along the course of the sciatic nerve, he suddenly became unconscious and his respiration, puffing. His pupils were contracted and his left arm rigid. His pulse became at once fuller and stronger than it had been since admission, there being ninety-six beats per minute. Fifteen hours before death the right side of the face was paralyzed. The radical pulse was smaller on the right side than on the left. The right foot was cold and the posterior tibial pulse behind the internal malleolus was just perceptible. Respirations were forty per minute, and stertorous; sweat and urine profuse. Twelve hours before death, respirations fifty-seven; temperature 106°.

The patient remained essentially in this condition until his death. At the post-mortem examination, upon opening the thoracic cavity, the base of the right lung was found in the second stage of pneumonia. There was hypostatic congestion of the left lung. But what at once threw light upon the later feature of the case was the presence of an aneurism of the transverse portion of the arch of the aorta. The specimen shows a symmetrical dilatation of the vessel capable of receiving a large hen's

egg. On examining the brain, clots, probably of embolic origin, were found in the right cerebral hemisphere, thus accounting for the paralysis which had been observed.

CASE. II.—Aneurism of the Right Common and External Iliac Arteries.—Johann B., a farmer, æt. twenty-six, was admitted to the Episcopal Hospital, Oct. 27, 1882. His previous health was good. He denied specific history and his habits were good. He was able to work until one week previous to admission, when he began to have pain in the feet and legs, shooting up the body to the head. His skin was yellowish, his tongue coated; his urine did not contain albumen. There was œdema of the feet and it is worthy of note that this had occurred on the right side, four months before admission. His spleen was apparently enlarged; his lungs presented nothing abnormal. Systolic and diastolic murmurs could be distinctly heard all over the cardiac area, but most clearly at the right second cartilage and transmitted over the left subclavian and carotid vessels. The heart was considerably hypertrophied.

Six weeks later the attacks of pain in the right side, to which he had been subject ever since admission, became more frequent and severe. The murmurs at the aortic valve were systolic and diastolic, low, soft and confused. A distinct thrill was now felt; heart's impulse quick and trembling.

Above one week before death a swelling occurred in the right parotid region, extending to the cheek and lower jaw. Subsequently a discharge thin and purulent, took place from the ear and the patient became unable to protrude his tongue. The œdema of the right leg returned and increased daily extending up to the body, the whole leg being about three times the bulk of the other. The aneurism grew with great rapidity; the distention of the vessel and the overlying structures gave rise to the greatest pain. The patient was unable to lie down and was always found in the sitting posture. The mind was clear up to the day of his death, which occurred two month after admission.

At the autopsy, upon opening the abdomen, the aneurism was found very prominent, occupying the right side of the abdominal cavity and extending from the concavity of the liver to Poupart's ligament, a distance of about nine inches. The aorta bifurcated at the upper border of the fourth lumbar vertebra, the tumor arising from the common iliac artery, one inch from the aorta.

Its whole anterior surface was covered by peritoneum. The right kidney was elevated, lying upon the tumor's upper surface, the ureter passing over the convexity of the tumor and to the inner side. The psoas muscle and crurale nerves were displaced and stretched to the outer side of the aneurism. The femoral artery emerges from the tumor one inch above the origin of the profunda.

Upon opening the sac a second sac was found within. No rupture had taken place. The cavities of both sacs were found filled with clots in various stages of organization. The walls were leathery and large flaps were found attached to them. There were also *post-mortem* coagulations.

The line of the blood current could be determined by the passage of a catheter. This was found both from above and below to skirt the inner side of the tumor and to pass through a comparatively short channel in its interior. Three of the bodies of the lumbar vertebræ were slightly eroded. The heart is hypertrophied; its weight, fifteen ounces. The mitral valve is normal but the aortic valve shows exuberent vegetations which impeded its action and which are very friable.

The specimen presented embraces the heart, the aorta, the aneurism with the right kidney upon its upper surface, the right femoral and the left iliac arteries.

CASE III.—Aneurism of the Abdominal Aorta and left common and External Iliacs.—Mary K., æt. thirty, was admitted to the Episcopal Hospital, Aug. 26, 1882. Her mother died in confinement and her father of heart disease. She had had three children; her husband was a bartender and had been treated for syphilis at a dispensary; but the patient herself denied specific history, nor were any evidences of it found. She had never been ill before.

Seven months previously she had pains in her left groin; these pains extended to the abdomen and about five monhts previous to admission she noticed a small tumor in the hypogastrium, which pulsated and became painful on pressure. Three months later her weight began to fail; she became delicate and lost flesh. For one month the tumor had been prominent. Pain then came on spontaneously at intervals and she had backache. She became weak and took to her bed. Two weeks before admission the left leg and thigh became painful and felt

benumbed, and motion grew difficult and for a time was lost. Meanwhile the tumor increased.

Upon admission she was weak. Her face showed anxiety and suffering and had a pinched and haggard look. Her lungs and heart were normal. On the right side of the abdomen a tumor was felt, one inch above the umbilicus and extending from one inch to two and one-half inches from the median line, downwards two inches. It was painful on pressure, pulsated distinctly and over it a distinct systolic *bruit* could be heard. A distinct notch separated this from a large hard mass in the left iliac fossa, indistinctly pulsating, imovable and not particularly painful on pressure. There was a faint *bruit*.

In the left thigh there was insensibility to touch, over the distribution of the anterior crural nerve, while pain in the left knee was often so great as to deprive her of sleep. The urine did not contain albumen.

At the end of two weeks sensation was diminished on the left side as high as the edge of the ribs and in the whole of the lower extremity, excepting the first and second toes. It was impaired over the buttock. Œdema of both legs occurred. The posterior tibial on the left side could scarcely be felt to pulsate.

Sept 13, the patient suddenly died. At the autopsy the abdomen was first opened. There was no blood in that cavity. Upon the left side in the iliac fossa there was a prominent tumor of the size of a cocoanut; over it lay the psoas muscle which was spread out in the shape of a thin aponeurosis. The iliacus muscle was displaced. The psoas parvus was inserted in the tissue covering the tumor.

A fusiform dilatation of the aorta was then noted. The diameter of the aneurism was three times the normal diameter of the aorta. Commencing from a point seven inches above the bifurcation, it extended downward nearly five inches.

A second aneurism occupied the left iliac fossa involving the left common and external iliac arteries. It was about six inches in length and was filled with old, fibrous, laminated clots. The latter aneurism had opened posteriorly behind the peritoneum and against the iliac bone. There had evidently been ruptures previous to the one which finally caused the patient's death.

There was found old as well as recent clots outside the aneurismal walls. There was no erosion of the bones. The femoral artery was normal and no atheroma or evidences of syphilis

observed, although the woman had been exposed to infection from a syphilitic husband.

Dr. C. M. Wilson presented the following specimens, the notes of which will appear in some future issue, owing to the author's failure to forward the papers to the Recorder: Case of Invagination of the Ileum; Case of Large Vesical Calculus; Case of Multiple Vesical Calculi.

THURSDAY, April 26, 1883.

JAMES TYSON, M. D., President, in the Chair:

A Lecture on the Methodical Examination of the Brain. By Dr. Charles K. Mills.

The lecture was amply illustrated by diagrams and specimens prepared by Dr. Mills, and also by a series of preparations from the *Müeller Museum* of the College of physicians of Philadelphia.

Dr. Mills passed by, with brief allusions, the scalp, skull and membranes of the brain, the cerebral space and vessels, and the best methods of determining volume, specific gravity and cranial capacity. His chief object in the lecture was to discuss and demonstrate the proper proceedures to be pursued in methodically examining the surface and interim of the brain, after the removal of its envelopes, for the purpose of discovering and accurately localizing lesions.

In order to make an autopsy of the brain proper, in a rapid, methodical and scientific manner, he considered several requirements necessary.

1. The superficial topography of the brain should be understood. The examiner should be able to pick out, without hesitation, the chief tissues and convolutions. He should, also of course, be perfectly familiar with the numerous superficial subdivisions of the base of the cerebellum.

2. The variations in the size, direction, or arrangement of cerebral fissures and convolutions most likely to occur, should be known to him. Age, race, individual type, education, and other causes act to produce variations and anomalies. The student thoroughly familiar with the diagrams and the demonstrations of Ecker, might find himself at sea in his first examinations, if this fact is not remembered.

3. A knowledge of the internal structure of the brain should be possessed by the operator. He should understand not only its ventricles and bones, its commissures and peduncles, its foramina and acqueducts, but also its medullated structure, as exhibited by sections of the cerebral and cerebellar hemispheres made in various directions. Methodical cerebrotomy, practiced in the vertico-transverse, vertico-longitudinal, horizontal and even in other directions, will give certain more or less fixed appearances which should be familiar.

The surface of the brain should be thoroughly examined for morphological peculiarities, such as deficiency or excess of fissures and gyri confluence of fissures, simplicity or complexity of folds and furrows; and also, of course, for pathological changes, for atrophy, softening, hæmorrhages, changes of color, etc. Dr. Mills described the fissures and convolutions as given by Ecker, and also called attention to some of the most common and striking variations from the usual type of the adult human brain, dwelling particularly on the fissures most likely to be confused—the precentral, central, and retrocentral, etc. The views and observations of Mary Benedikt on the brains of animals, were referred to, and criticised.

The examination of the fissures, convolutions, cranial nerves and various regions of the surface of the cerebrum and cerebellum having been completed, the interior of the brain should next claim attention. The examination should be made in such way as to cause as little disturbance as possible of the relations of the parts by the incisions, and to allow, if desired, that the brain be brought together again after the autopsy and preserved as a whole. This could be done so as to submit every cavity, canal, part and structure to comparatively minute exploration. Some cerebrotomists, as Bitot, without stopping to investigate, particularly, into the various cavities and subdivisions, at once proceed to divide the brain into blocks by large incisions made at carefully selected points.

The advantage of each of the three forms of sections—vertical, transverse, vertical antero-posterior and horizontal, were pointed out. The vertical transverse sections are the most generally useful. What are known as the middle transverse, mesolobar, or cortico-central zones, are most important to understand. These comprise all the cerebral mass situated between the anterior and posterior extremities of the corpus callosum. Bitot de-

scribes and figures seven of these zones. Sections and diagrams were exhibited by Dr. Mills, and the places and methods of making the sections were explained.

The particular convolutions, and the regions of the ganglia, centrum, ovale, capsules, etc., transversed by these sections, were shown. The ganglio-insular region was particularly described. This region includes a large portion of the island of Reil, of the optic and striate ganglia, of the external and internal capsules, and of the external wall. The importance of having at command a fixed nomenclature for the various planes and regions was dwelt upon. Following the method of Bitot, the surfaces exposed by the sections were divided into a superior, inferior and middle division, and these were studied. A diagram representing the relation of the middle portion of the brain to cranium was shown and explained.

Dr. Mills said that he preferred to open the brain so as to expose its ventricles, horns and parts, and examine each as nearly as possible in its integrity. By his methods such structures as the corpus callosum, septum lucidum, tænia, semicircularies, velum interpositum, choroid plexus, fornix, foramen of Munro, pineal gland and its peduncles, etc., could be each in turn investigated for lesions.

After the cavities and horns had been exposed by proper incisions, methodical cerebrotomy, as advised by Charcot and Pitre, or Bitot, could be practiced, the cuts being made from within outwards, but not quite through the brain, so that the whole mass could be drawn together again after the cut surface had been examined.

Dr. Mills described three of the best methods of opening the brain.

1. At the base, by taking as guides, certain fissures and other anatomical landmarks.

2. From the upper surface by incisions through each side of the corpus callosum, or along the lower borders of the calloso-marginal fissures.

3. By dividing the brain into two symmetrical halves by a careful median section. This should only be done after the parts in the median line had been previously explored. Dr. Shakespeare said that he would like the lecturer to state why he prefers to open the brain from the base rather than from

above. Dr. Shakespeare thought that by by opening from above the floor of the lateral ventricles would be better exposed, which contain the large ganglia of the brain, and a better topographical view would be obtained.

The most usual cause for which the brain is examined is apoplexy. In these examinations it is very necessary that very thin sections shall be made, so that all parts can be carefull examined. Dr. Mills has already pointed out the desirability of making these sections in such a manner that none shall be detached, so that when the examination is over all can be readily replaced, still leaving the brain practically in one piece. I believe that these two objects can better be obtained by making examination from above, as taught by Prof. Orth (Copendium der Pathologisch Anatomischen Diagnostik) than by making it from below. The only part capable of holdingthe sections together is the cortex with its adherent vessels. Prof. Orth advises making a longitudinal section toward the cortex on a level with the corpus callosum. The section is made deep enough to cut the cortical convolutions half through. This leaves enough tissue to keep the part attached. The anterior horn, the ventricles and posterior horn are laid open by a second incission. Transverse cuts, as thin as desired, are then made in the side pieces. These cuts go half way through the center. The large ganglia are then sliced transversely, beginning at the front and going backward. These are also made to go half way through the corticle substance of the base, and so on. The examination being finished, the parts can all be folded together like the leaves of a book, not a single piece having been detached. The only way I can see of making thin sections of every part by the other method is to divide into two lateral halves, and then making your sections toward the cortex, for if the sections be made directly across the brain, the parts in front of the corpus callosum and behind the peduncles, will been tirely detached.

Another objection is that seven sections are two few, and if it is desired to have more, it will be a difficult task to hold the already cut sections in one hand, and split them with the knife held in the other.

Dr. Bartholow preferrred to open the brain from above for similar reasons to those assigned by Dr. Shakespeare. Dr. Eskridge expressed a preference for the older method.

Dr. Mills then closed the debate by reiterating and emphasizing the arguments contained in his paper.

C. B. NANCREDE, Recorder.

Reports on Recent Progress in Medicine.

Article LXIV.

A Fibro-Cystic Tumor of the Uterus.—Laparotomy.—Removal of the Tumor with Recovery. By Reynold W. Wilcox, A. M., M. D., Assistant House-Surgeon, Woman's Hospital in the State of New York.

Reported for the Journal.

While ovariotomy has become recognized by all modern surgeons a judicious proceedure, laparotomy for the removal of tumors originating from the uterus, still occupies the position that the former once had. Yet the increasing number of successful cases recorded that one meets in the journals, bears testimony that the time is not far distant when the surgeon finds during his operation the tumor to be uterine instead of ovarian, he will not be appalled, but will proceed with as much assurance as though his diagnosis had been correct.

So every reported case adds its testimony and increases the confidence of those working in this special field.

The following case will illustrate what may be sought for as an ideal result, the difficulties in diagnosis and the apparent contradiction or history and orthological examination. Those operators who manifest great anxiety that their percentage of recoveries shall be the largest possible and who refuse to operate on all cases that carry with themselves indications of unusual difficulty or having commenced, fail to finish the operation that it may not have a place in their list of completed operations, do not operate for the good of the patient. While Dr. Thomas realizes that at the present time that the cases of removal of uterine tumor do not have so large a *per centum* of recoveries, as those of ovarian tumors, his sense of justice will not allow him to deny to the patient her only hope of recovery. Even operating on unselected cases, the writer feels positive that the statistics will bear favorable comparison with those of any similar institution.

The patient, Mrs. A. P., was admitted to the Woman's Hospital on the 23d of October, 1882, with the following history: A native of the United States, she is sixty-three years old and has been married forty-two years, and is the mother of two children. Her labors at the ages of twenty-two and thirty-nine, were entirely normal. She began to menstruate at sixteen and continued regular in time, duration and quantity until she reached the menopause at the age of fifty, without a symptom of any kind. About eighteen months previous to admission she noticed an indistinct enlargement of the abdomen, which of late has increased slowly. Her only symptom referable to her disease was pain through the pelvis after walking; she has never had any hæmorrhage from the genital organs. About twenty-five years ago she had a watery discharge from the vagina, leucorrhœic in character but which she attributed to impaired health and which soon ceased; no symptoms referable to the bladder. Bowels constipated. Some swelling of the lower extremities. General health good, appetite always good, sleep excellent until four years ago when it became disturbed because of family bereavement. Dyspnœa absent. Palpitation and dyspepsia about five years ago but now wanting. Has lost some flesh. Is now wearing an abdominal supporter.

Physical examination: A mass was found filling the pelvis, both flanks and reaching to the umbilicus. Over the whole of the abdomen below the umbilicus there was flabbiness on percussion. No fluctuation was detected. The uterus admitted the sound to the depth of two inches, was fixed in a position of slight anteversion and deviated to the left. The pelvis was filled by the mass but it was not fixed in it.

Nov. 9th, 3 P. M. The following measurements were taken: Circumference at level of umbilicus, thirty-eight inches; right anterior superior spine of the ilium to the umbilicus, eight and one-half inches; left anterior superior spine, of the ilium to the umbilicus, nine inches; symphysis pubis to the umbilicus, nine inches; tip of the ensiform cartilage to the umbilicus, seven and one-half inches. The patient being etherized, an incision six inches long was made from the umbilicus downwards in the *linea alba*. The peritoneum being opened on a director, the smooth shining surface of the tumor appeared. A small cyst was recognized in the upper part of the tumor and a trocar plunged into it evacuated only a small amount of straw colored fluid. The incision was then prolonged upward and about an inch to the left of the umbilicus, and after some manipulation the tumor was drawn out of the wound. The omentum adherent to the upper anterior surface ofthe tumor was tied *en masse*, and cut off. The pedicle was thick and strong and proved to be the uterus and broad ligaments, the tumor growing from the left side of the uterus. The pedicle was transfixed with a Peaslee needle and a strong silk ligature being passed was tied in the usual way.

The tumor then being removed, there were several small spouting vessels seen in the stump and these were separately tied; the whole stump was then caught in a small Thomas clamp, a strong ligature being tied below this for additional security against hæmorrhage. The wound was closed with interrupted sutures of silver wire, the stump enclosed in the clamp, propounding from the lower angle of the wound. The stump was touched with pure carbolic acid and an antiseptic dressing applied. Spray used in room during the operation. Weight of the tumor, twelve pounds.

Fourth day after the operation. The patient has not developed a single untoward symptom; has a rather troublesome cough accompanied by expectoration of a very tenaceous mucus which at times in difficult to expel from the fauces and trachea. The temperature has not risen above 100°.2 Fahr. and the coil* has been used but little and then only but a short time. Sleep has been good and she has taken nourishment well, in short, has done well, in every respect.

Seventh day. Temperature rose to 101°.4 Fahr., presumable on account of the sloughing of the stump. The coil was kept on the abdomen as well as another upon the head. Did not feel comfortable and face was hot, dry and flush. Food not well taken although no vomiting.

Eighth day. Temperature has fallen to 100°.2 Fahr. with improvement in sleep and appetite. Coil still used. Nourishment chiefly by ordinary enemata composed of beef juice two ounces, brandy one drachm, quinine ten grains, aromatic sulphuric acid ten drops, and compound liquor of opium thirty drops.

Ninth Day. Temperature 99°.4 Fahr. and is feeling much better. Clamp has separated and stump is doing well. On movement patient is rather weak and inclined to faintness.

Tenth day. Doing well, stitches removed and considerable irritation caused by them was found near the stump. Stump is not granulating as yet, as all sloughing tissue has not yet come away. Wound dressed with balsam of Peru.

Sixteenth day. A number of deep sloughs were removed from stump, leaving a clean granulating surface; the remaining portion of the wound is healed.

Twenty-second day. The surface presented by the stump has become superficial. Patient is sitting up.

Twenty-sixth day. An abscess which has been forming in the right natis discharged quite freely to-day. Wound in the abdomen is nearly healed.

Twenty-ninth day. The patient is sitting up every day.

On the forty-ninth day the patient was discharged cured.

The following is the report of the pathologist: The tumor is

* The coil is an apparatus constructed on the same principle as the Leiter Heat Regulator, but of rubber tubing.

a large interstitial myo-fibroma of the uterus. The great mass of the tumor is solid. In the upper part there is, however, a cyst of moderate size. This cyst presents the usual characters of fibro-cysts. The walls are irregular and shaggy, without epithelial lining. The adjacent tissue has undergone some fatter degeneration, this giving it a yellowish collor. About the cyst are brownish and red patches, indicating old and recent hæmorrhages. The veins in the neighborhood of the cyst are in some places filled with dark red thrombi. A few small œdematous patches can be detected in the upper part of the tumor. Torn out portions of these patches bring into view, under the microscope, a number of flat, polygonal endothelial cells, which are joined together. The microscope shows the structure to be myo-fibroma, there being smooth muscular fibres mingled with fibrous tissue. Large veins run over the surface of the tumor, which is everywhere covered with smooth glistening epithelium except where the tumor is amputated. A bit of omentum is adherent to the upper part of the tumor. The general shape of the new growth resembles that of a pregnant uterus. Between the peritoneum and the new growth can be demonstrated a layar of the muscular cord of the uterus about one centimetre in thickness, near the lower part of the tumor and only one or two millimetres at the upper part. None of the uterine cavity is found connected with the tumor.

The fluid removed from the cyst is of straw yellow color, slightly alkaline in reaction and coagulates spontaneously on exposureto the air. The sediment consists of blood globules but no cellular elements.

In making the diagnosis we are to consider ovarian tumor, myo-fibromatous and fibro-cystic tumors of the uterus, as well as sarcomatous tumors of the same organ. For a strict diagnosis by exclusion, all tumors of the pelvis and abdomen as well as pregnancy could be considered, but the four above mentioned cover all the ground that is brought into debate in this instance. For the diagnosis of ovarian tumor we have the situation of the mass to the left of the median line, as shown by the measurements. The hardness and smooth surface of which suggests a fibroma and from the deviation of the uterus to the left suggests that there are adhesion between the mass and that organ. Still in accordance with this idea is the fact that the mass was not tender and the uterine cavity was not increased, yet the size to which the mass had attained, the rapidity of its growth, the fact that the distance from the pubes to the umbilicus was too great in comparison with that from the umbilicus to the ensiform cartilage, render the probabilities in favor of the uterus at the point

of origin, this being shown conclusively by the operation. Yet even with the tumor on the table, the diagnosis may be difficult to establish as it is shown in the case reported by Barker,[1] when after conflicting opinions, the pathologist decided the tumors to be uterine in origin.

A pure fibro-myoma, originating after the menopause, unaccompanied by hæmorrhage, is improbable. Boones[2] says "I do know that it has ever been satisfactorily made out that fibroid tumors originate after the climacteric." *A priori* one does not expect that the uterus in its period of inactivity to be the starting point of a tumor, while it is possible that it may have existed for years unsuspected, at the same time we know of no exciting cause for its sudden and rapid development. Emmet[3] found, of two hundred and twenty cases of fibroid tumors, five consulted him between the age so fifty-five and sixty years. That pain other than that due to mechanical causes, was absent, is well explained by Bövuer[4] who says that subserous fibroids do not cause pain other than that due to the peritonitis which they excite, with a pedicle usually one finds ascites. The absence of hæmorrhage is explained by the same author, on the same ground that subserous tumors, in that respect follow ovarian instead of intra-uterine tumors.

The diagnosis of fibro-cystic tumors of the uterus appears to be the most probable, but against this view is the rapid growth which was so characteristic in this case. That this is not without precedent is shown by Hakes' case[5] which filled the abdomen in seventeen months. Fletcher[6] in one year and that of Peau[7] still more rapid, which attained the same size in six months. The age of the patient, also, is unusual, although two cases of advanced age are on record; the first reported by Keith,[8] of a single woman fifty-two years, operation and recovery; the second by Spencer Wells, a married woman of sixty-two, operation, while Peau[9] believes that these tumors originate, by preference, toward the menopause.

In regard to the spontaneous coagulation of the fluid on exposure to the air, pronounced pathognomia by Atlee,[10] Spencer Wells, quoted by Fehling U. Leopold[11] claims to have seen such coagulations in fluid from an ovarian cyst, while in seventy cases collected by Heer,[12] marked coagulation was found in only eleven. Not yet was there any "doughy feel" insisted on by Beatty.[13] Routh[14] believes that fibro-cyst rarely give rise

to hæmorrhage because the majority of them are subserous and so do not influence the uterine mucous membrane.

The rapid growth of the mass, even after comparing it with similar cases, leads one to consider tumors of a malignant nature. The absence of pain and of offensive discharge, considering the length of time, would render carcinoma improbable and it is readily excluded by the report of the pathologist. That it is not uncommonly associated with fibroid tumors, is shown by Arnold[15] who found among fifty-seven *post-mortem* examinations in cases of death from cancer, fibroid tumors occupied the remaining portion of the uterus in four cases. Gusserns[16] believes that a tumor takes on rapid growth in the years of the climatric, when we do not expect a fibroid to increase, we are to consider a sarcoma as probable. To Dr. Thomas[17] belongs the credit of first pointing out that such tumors are by no means as rare as they were supposed, and of first giving a full description. It was to this source that Simpson owes his attention being attracted to the subject.

Two prominent symptoms of sarcoma are wanting, namely, hæmorrhage and watery flood. Pain, according to Simpson[18] is not usual, yet Gusserns[19] says pain is the first symptom of all, and further, a malignant tumor in the fundus of the uterus is probably a sarcoma. In Simpson's cases all approached or had passed the menopause, the oldest being seventy-two; the prominent symptoms being marked hæmorrhage, leucorrhœa, at first odorless and later offensive. He believes that it may develop in in a woman who has had children, but its presence prevents reproduction. The case reported by Terrier[20] is quite in point, a woman of forty-four, had two children, regular catamenia, tumor of five months' duration. Laparotamy was executed and a cystic-fibro-sarcomatous tumor of the uterus was removed, weighing three hundred and fifty grammes, resulting in recovery. Here pathologically[21] the tumor was sarcomatous, and the cyst developed from a hæmorrhagic spot.

Tait[22] says, "whether the sarcomatous tumors of the uterus do or do not arise from perversion of the growth of the muscular fibre, I am not prepared to say but I have seen one on which the cells were so nearly matured into an appearance and arrangement so nearly resembles normal uterine tissue that had it been encephaloid, œdema, can say it was nearly a soft myoma."

In the cases collected by Gusserns[23] sixty-two in number,

twelve were between fifty and sixty, two between sixty and seventy years old, and one had passed the latter age. When one considers that for many years tumors approaching were more sarcomatous than fibrous tumors, in their clinical history, passed under the designation of "recurrent fibroids" and further that fibroids themselves, even of considerable size, have been known to take a sarcomatous degeneration; one can see that the diagnosis is by no means easy to establish.

Maury[24] has given some statistics of laparotomy for removal of fibro-cystic tumors, as follows:

1843-63, fourteen operations with twenty-eight and one-half per cent. of recoveries; 1863–78, forty-two operations, with thirty and nine-tenths per cent. of recoveries; 1878–80, nineteen operations with the per cent. of recoveries reaching sixty-eight and one-half per cent. Certainly this is by no means a discouraging outbreak when one considers the gravity the prognosis[25] and how prone these new growths are to undergo suppuration.

In this connection an unique case reported by Williams[26] of a single woman of thirty-two, with pain in back, prolapse of rectum, agony during and after defæcation. The diagnosis of fibro-cystic tumor of the uterus was made and under chloroform a red hot iron the size of a crow's quill was passed into the tumor through the speculum; some clear fluid was obtained which coagulated on exposure to air, and recovery with disappearance of the tumor resulted. The diagnosis is not conclusive considering the number of tumors one finds in and about the uterus. Certainly the result was far better than in other cases that have been punctured, when ten out of eleven died.[27]

Keith[28] says that while the operation is not to be lightly undertaken, "I hope that the time is not far distant when many of these unfortunates will look to surgery for relief with as much confidence as those afflicted with ovarian diseases now do."

If men who have reputations as skillful ovariotomists, would undertake these operations with the same certainty as they now do ovariotomy, one can believe that the operation will appear less and less formidable as the years go on.

New York, March, 1883.

1. American Journal of Obstetrics, Jan., 1880, p. 135.
2. Diseases of Women, Philadelhpia, 1878, p. 641.

3. Principles and Practice of Gynæcology, Philadelphia, 1880, p. 529.
4. Volkmann Vorbräge, Leipzig, 1882, No. 202.
5. British Medical Journal, Feb., 1883, p. 225.
6. British Medical Journal, Nov. 1882, p. 469.
7. Peau et Urdy, Histerotomie, Paris, 1873.
8. London Lancet, May 15, 1875, *op. cit.*, p. 101.
9. Diagnosis of Ovarian Tumors, Philadelphia, 1873, p. 289.
10. Archiv. für Gynæcologie, Bd. VII., 1875, s. 531.
11. Ueber Fibrocystens des Uterus Zürich, 1874.
12. British Medical Journal, Nov., 1871. p. 517.
13. Transactions Obstetrical Society, London, Vol. VII., p. 202.
14. Transactions Pathological Society, London. 1870, p. 281.
15. Neubildengen des Uterus, s. 157.
16. Diseases of Women, Philadelphia, 1880, "Sarcoma and Adenoma of the Uterus."
17. Obstetrical Journal of Great Britain, Feb., 1876, p. 757.
18. *Op. cit.*
19. Review de Chirurgie, Mai, 1881, p. 402.
20. L'Union Medicale, Juin, 1881, p. 1022.
21. Diseases of Women, New York, 1879, p. 104.
22. *Op. cit.*, s. 150.
23. New York Medical Journal, April, 1880, p. 344.
24. DeSinéty Mon. Prubique de Gynæcologie, Paris, 1876, p. 413.
25. British Medical Journal, March, 1881, p. 384.
26. Leopold u Febling, *loco cit.*
27. *Loco cit.*

Clinical Reports from Private Practice.

Article LXV.

Resume of the Case of Mrs. E—. of Elkhart, Indiana. By W. A. Neal, M. D., referred to by Dr. Stevens in proceedings of St. Lous Medical Society, April 21st., 1883. Reported for the Journal.

February 19th, 1883, about 10 A. M., was called by Dr. Eckelman to come and help him in the delivery of Mrs. C., primipara age nineteen and to bring forceps found she had been in active labor for 22 hours the cervix fully dilated and out of the way, that she had antero posterior contraction and was informed that there had been no advance for twelve hours, presentation left occipito acetabular, applied forceps [Bedfords] after slight traction and manipulation there some rotation with a very little advance; then for about an hour in spite of as extraordinary expulsive efforts on the part of the patient as I ever saw and with what traction and assistance I thought was justified (endeavoring to make traction in line of pelvic axis) there was no advance. I then removed and reapplied the blades which could only be placed as before in oblique position the male blade towards left acetabular the female right illiac region, in a short time the childs head began to rotate and advance and I informed the friends that rupture of the pernieum was unavoidable, in another half hour, one and a half hour after forceps were applied, delivery was affected twentyfour hours in labor. I never met with a patient that made as vigorous and powerful expulsive effort, the perineum was torn to, not through, the splimeter, the next day I took three silver wire suteres, which I removed in eight days, all held, and the union was good, for the first eight days she was not under my care, but after that time I was requested to take charge of the case, she was then tympanitic, with impeded respiration, pain over her whole abdomen, more especially in right illiac region, no antisceptic precautions had been taken in regard to injections etc. Her temperature was 102° morn-

ing 104° evening, pulse 116 to 130, I treated her mostly with opium quinine, with two or three quarts of milk daily, when after about ten days pain and tympanitis began to subside her pulse and temperature dropped to 100, and I thought she was going to convalesce, but she was suddenly seized with pain and swelling in the calf of her left leg, which soon involved the whole limb, with temperture 103, pulse 120, or 130°, and I had phlegmasia dolen to deal with, this was treated with tonics, rubefacients, muffling and anodynes, after about fourteen days more, pain and swelling in this left leg subsided, pulse and temperture dropped to 100 or under. Again she was taken with a severe chill and nervous prostration, temperature 105, pulse 140, complete loss of appetite, nausea and vomiting, hurried respiration, anxious expression, symptoms of septic infection, treated mostly with stimulants, and as soon as borne, added food [she used 36 bottles of champagne] after about five or six days she commenced to cough, had flushed cheeks, rapid breathing and "raised a good deal" after about 10 or 15 days of this, she was taken again with pain, again in the right illiacus, just above the illiac bone, [as seen by Dr. C. W. Stevens.] which appeared for a week or more as though it was going to point, but an offensive vaginal discharge commenced, the pain and tumefaction passed down the outside and back of the right leg, (thigh) and settled for a week or so, some two inches above the popliteal space and appeared to me like it might point and form an abscess there, but the pain and soreness at this point got better, and the ankle, foot and calf of the same right leg became stiff, tumid, and painful, and after a week or so of this, her appetite, which had been fair this far, so that she was fairly nourished, failed her, she was nauseated, loathed food, vomited a few times, bowels constipated, had headache, but only slight raise in temperature 96° to 101° pulse 88 to 100, acting somewhat as our malarial remittants do, at the same time the pain and tunefaction of the right limb began to diminish, this has been going on now [May 1st,] about five days, and is the 72nd, day since confinement, she has now but little appetite, bowels constipated, daily rise in temperature of one to two degrees, and of pulse 8 to 12, tongue during the fever red, in remission normal, when she is almost like a well-person she has occasional headache. I have faith that the case is now going to soon convalesce but I fear future trouble with the lymphatic vessels of her lower limbs.

Editorial.

Article LXVI.

We notice that Dr. Henry Morton has changed his opinion in regard to water gas being so poisonous, on account of it containing so much carbolic oxide, and so we desire to correct the impression that the statemeat in our last Journal was the opinion of Dr. Morton at present, as he, since he first published that statement, has changed his opinion.

Although the field of journalism is full to overflowing, yet there is always room for a good journal, and as such we welcome the *American Psychological Journal.* Issued by the National Association for the Protection of the Insane and the Prevention of Insanity, quarterly. Edited by Joseph Parrish, M. D., Burlington, New Jersey, with a good core of associate editors. Published by P. Blakiston, Son & Co., Philadelphia. $2 per annum.

News Items.

Article LXVII.

Eratta.—P. 478, May No. 6th line of second paragraph should read "Through the Hepatic vein" instead of. "to the portal vein."

Dr. Edward Borck, of this city, just returned from a trip to Hutchinson, Kas., where he performed ovariotomy upon the sister-in-law of Dr. N. T. P. Robertson, a prominent physician of that place. The patient's home is Fairburg, Ill. She is 63 years old, and traveled, accompanied by her husband, who is 83 years of age, and her family physician, Dr. S. M. Barnes, a distance of over 700 miles, to receive the advice and attention of her brother-in-law, in whose judgment she has great confidence. He selected Dr. Borck to perform the operation, who promptly answered the call, 500 miles away. The operation was performed on the 24th of May, assisted by Drs. Robertson, Barnes and Smalt, all eminent surgeons, and several others. The particulars of this interesting case will be reported by Dr. Robertson for the Journal.

Costly Compliments.—"If a doctor says "goodday," to you, it costs you one dollar; but when a lawyer says "good night," you will find that it has cost you half your fortune.

Falsification of Quinine.—It has lately been discovered by the authorities of the hospitals of Paris, that for some time past the boxes of quinine supplied to public institutions have contained quinine at the orifice and center of the boxes, while the remainder consisted of sulphate of cinchonidine. At first the French papers accused the German and Italian manufacturers of the fraud. But it was soon shown that a patriotic Frenchman was at the bottom of it. The papers were compelled to retract their statements.

THE difference between a druggist and a farm hand is said, by our exchanges, to be, that one is a pharmacist and the other a farm-assist.

TREATMENT OF CHANCRE WITH PYROGALLIC ACID.—At the meeting of the Académie de Médicine of Paris, held January 2, 1883, M. Vidal advocated the employment of an ointment of pyrogallic acid, 10 or 20 parts to 80 parts of fresh vaseline, in the treatment of phagedenic chancres. Starch may be substituted for the vaseline when it is desired to apply the dressing in the form of a powder.

Under this treatment the ulceration is rapidly arrested, and the chancre takes on a healthy appearance; it is quite as efficacious as the cautery, and only causes burning for a few moments. The dressing should be applied twice daily; both the wound and the skin become black in appearance; the virulence of the sore is destroyed in about three days, and this treatment should be discontinued when granulations appear, and the powder of subcarbonate of iron then applied.

M. Vidal states that absorption only occurs to a limited extent when pyrogallic acid is brought in contact with the subcutaneous cellular tissue; its presence in the urine can be determined by the addition of perchloride of iron.—[*Jour. de Méd. de Paris.*

INFLUENCE OF FOWLER'S SOLUTION UPON THE HÆMOGLOBIN IN THE BLOOD.—From an investigation made to determine the effects of the medicinal administration of some remedies upon the proportion of hæmoglobin in the blood, Dr. Fenoglio, of Turin, concludes that the iron preparations vary considerably in their effects; Fowler's solution increases the hæmoglobin, and this becomes more marked the longer it is given. In spite of the general opinion to the contrary, the administration of Fowler's solution is indicated in anæmia, chlorsis, and in general in all conditions in which there is a decrase in the hæmoglobin, for the influence of this agent is very evident in increasing the proportion of the hæmoglobin; and, furthermore, its use increases the appetite and produces a general improvement in the bodily appearanca and condition.—[*Medizin. Jahrbücher*, 1882, H. iv.

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